TREATISE ON BASIC PHILOSOPHY

Volume 8

ETHICS:
THE GOOD AND THE RIGHT

TREATISE ON BASIC PHILOSOPHY

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ETHICS	*The Good and the Right*

MARIO BUNGE

Treatise on Basic Philosophy

VOLUME 8

Ethics:

THE GOOD AND THE RIGHT

D. REIDEL PUBLISHING COMPANY

A MEMBER OF THE KLUWER ACADEMIC PUBLISHERS GROUP

DORDRECHT / BOSTON / LANCASTER

Library of Congress Cataloging-in-Publication Data

Bunge, Mario Augusto.
Ethics: the good and the right / Mario Bunge.
p. cm. — (Treatise on basic philosophy: v. 8)
Bibliography: p.
Includes index.
1. Ethics. 2. Social ethics. I. Title. II. Series: Bunge, Mario Augusto. Treatise on basic philosophy: v. 8.
BJ1012.B75 1989
170—dc19 89-2394
ISBN-13: 978-90-277-2840-1 e-ISBN-13: 978-94-009-2601-1
DOI: 10.1007/978-94-009-2601-1

Published by Kluwer Academic Publishers,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

Kluwer Academic Publishers incorporates the publishing programmes
of D. Reidel, Martinus Nijhoff, Dr W. Junk and MTP Press

Sold and distributed in the U.S.A. and Canada
by Kluwer Academic Publishers,
101 Philip Drive, Norwell, MA 02061, U.S.A.

In all other countries, sold and distributed
by Kluwer Academic Publishers Group,
P.O. Box 322, 3300 AH Dordrecht, The Netherlands.

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Softcover reprint of the hardcover 1st edition 1989

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GENERAL PREFACE TO THE *TREATISE*

This volume is part of a comprehensive *Treatise on Basic Philosophy*. The treatise encompasses what the author takes to be the nucleus of contemporary philosophy, namely semantics (theories of meaning and truth), epistemology (theories of knowledge), metaphysics (general theories of the world), and ethics (theories of value and right action).

Social philosophy, political philosophy, legal philosophy, the philosophy of education, aesthetics, the philosophy of religion and other branches of philosophy have been excluded from the above *quadrivium* either because they have been absorbed by the sciences of man or because they may be regarded as applications of both fundamental philosophy and logic. Nor has logic been included in the *Treatise* although it is as much a part of philosophy as it is of mathematics. The reason for this exclusion is that logic has become a subject so technical that only mathematicians can hope to make original contributions to it. We have just borrowed whatever logic we use.

The philosophy expounded in the *Treatise* is systematic and, to some extent, also exact and scientific. That is, the philosophical theories formulated in these volumes are (*a*) formulated in certain exact (mathematical) languages and (*b*) hoped to be consistent with contemporary science.

Now a word of apology for attempting to build a system of basic philosophy. As we are supposed to live in the age of analysis, it may well be wondered whether there is any room left, except in the cemeteries of ideas, for philosophical syntheses. The author's opinion is that analysis, though necessary, is insufficient — except of course for destruction. The ultimate goal of theoretical research, be it in philosophy, science, or mathematics, is the construction of systems, i.e. theories. Moreover these theories should be articulated into systems rather than being disjoint, let alone mutually at odds.

Once we have got a system we may proceed to taking it apart. First the tree, then the sawdust. And having attained the sawdust stage we should move on to the next, namely the building of further systems. And this for three reasons: because the world itself is systemic, because

no idea can become fully clear unless it is embedded in some system or other, and because sawdust philosophy is rather boring.

The author dedicates this work to his philosophy teacher

Kanenas T. Pota

in gratitude for his advice: "Do your own thing. Your reward will be doing it, your punishment having done it".

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PREFACE TO *ETHICS*

This book is about values, morals, and human actions. It is also about axiology (the study of value systems), ethics (the study of moral codes), and action theory. It is concerned with both private and public values, morals, and actions. In particular, it seeks to uncover the roots and functions (biological and social) of valuation and morality. As well, it attempts to sketch a value system, a moral code and a general plan of action that may help us tackle the dreadful problems of our time.

We live in dangerous times. For the first time this may be the last time. A thesis of this book is that we have been marching blindly to the brink lured by wrong values and guided by wrong morals. But it is also a thesis of this book that such wrongs can be righted through gradual global social reforms, and that we are still in time to do so.

If the above theses are true, then value theory, ethics and action theory are nowadays a matter of life and death rather than just subjects of academic interest. In other words, it has become vitally important to know not only what values, morals and action patterns are, but also which are the values and morals we should live by, and which actions we should take.

The classical philosophers are of little help to find plausible and useful answers to these questions, for they never faced the possibility of the extinction of the human species as a result of nuclear war or environmental degradation. Nor could they make use of contemporary social science to work on axiological, ethical or praxeological problems. Our predicament is unique, and so is our chance to extricate ourselves from it.

Before the 1960s most value theorists and moral philosophers used to dwell in an ivory tower: they specialized in metaethics, were generally indifferent to real life problems, and seldom committed themselves to any substantive views on values and morals. (Bertrand Russell was an exception, but few professional philosophers took him seriously. He dealt only with large issues and anyone could understand him. Worse, he was a maverick.)

This situation has changed dramatically over the past quarter-

century: value theory and moral philosophy have never been as alive as nowadays. Haunted by the spectres of nuclear war, environmental degradation, and social injustice, value theorists and moral philosophers have descended in droves from the ivory tower to the agora. On the whole this descent to social reality has been healthy: there is less hair-splitting and pointless analysis, less rhetoric and hypocrisy. But at the same time there is also more shameless defense of the supreme axiological blunder — the worship of possessions — and the supreme moral vice — selfishness.

The revival of value theory and ethics can be attested to by anyone who bothers to peruse the philosophical journals published in the course of the last few years. This revival is particularly welcome at a time when philosophy as a whole is at a low ebb — so much so that some philosophers have proclaimed its death while others have taken leave of reason. But the current flourishing of ethics may be an indicator of the general crisis of modern civilization, for people do not usually reflect on problems about values and morals until they face them, and nowadays most of us face them daily by the dozen.

This is the last volume of my *Treatise on Basic Philosophy*, on which I started to work two decades ago. It is consistent with the previous volumes, in particular with the naturalistic, dynamicist, emergentist and systemist ontology, as well as with the realistic and ratioempiricist semantics and epistemology formulated therein. However, the present book may be read independently of its companions.

Finally an autobiographical note. I began writing on value theory and ethics nearly three decades ago (Bunge 1960, 1961, 1962a). When I planned this volume I thought that writing it would be plain sailing. I was counting on my calculus of value (1973, 1975) and on decision theory, which I had applied to a political problem (1973). Fortunately, before I started to work on this book I realized the impossibility of a general value calculus, and I became disillusioned with decision theory (see Vol. 7, Ch. 5, Sect. 5.2). These disappointments forced me to take a fresh look at values, morals, and actions. This task proved to be more formidable than anticipated — and, by the same token, more rewarding too. I hope that my second thoughts on values, morals and action are an improvement on my earlier ones.

ACKNOWLEDGEMENTS

I am greatly indebted to Frank Forman (political philosophy), Ernesto Garzón Valdés (ethics and legal philosophy) and Pierre Moessinger (psychology) for having criticized a draft of this book. However, I have stuck to many ideas which they reject.

I have also benefited from exchanges on axiological or ethical problems with many of my students and with some scholars, in particular Joseph Agassi, Carlos E. Alchourrón, David Blitz, Eugenio Bulygin, Héctor-Neri Castañeda, José M. Ferrater-Mora, Andrés J. Kálnay, Mihailo Marković, Luis Puelles, Miguel A. Quintanilla, Hernán Rodríguez-Campoamor, Fernando Salmerón, Tom Settle, and Paul Weingartner. And I am grateful to Armand Buchs, Jean-Pierre Imhoff and Henri Ruegg for their hospitality at the Faculté des Sciences of the Université de Genève during the 1986—87 academic year.

My debt extends to a number of persons whom I never thanked enough while they were alive. Among them are the value theorists and moral philosophers Risieri Frondizi and Alfred Stern, both of whom I befriended in 1944 when I launched the philosophical journal *Minerva*, and whose courageous lives have been a model.

My greatest debt is of course to my parents. My mother Mariechen, who did her best to keep me on a short Lutheran leash, served a prison term at age 62 for conspiring against a military dictatorship. My father Augusto — physician, sociologist, writer, and congressman — combined an intense love of life and respect for nature with devotion to the public good and passion for social justice and liberty. Among other books he wrote one on moral and social philosophy: *El culto de la vida* (1915). He taught me through example that politics need not be dirty, and that it ought to be the arm of morality.

INTRODUCTION

The purpose of this Introduction is to sketch our approach to the study of value, morality and action, and to show the place we assign it in the system of human knowledge.

1. VALUE, MORALITY AND ACTION: FACT, THEORY, AND METATHEORY

We take it that all animals evaluate some things and some processes, and that some of them learn the social behavior patterns we call 'moral principles', and even act according to them at least some of the time. An animal incapable of evaluating anything would be very short-lived; and a social animal that did not observe the accepted social behavior patterns would be punished. These are facts about values, morals and behavior patterns: they are incorporated into the bodies of animals or the structure of social groups.

We distinguish then the facts of valuation, morality and action from the study of such facts. This study can be scientific, philosophic or both. A zoologist may investigate the way an animal evaluates environmental or internal stimuli; a social psychologist may examine the way children learn, or fail to learn, certain values and norms when placed in certain environments. And a philosopher may study such descriptive or explanatory studies, with a view to evaluating valuations, moral norms, or behavior patterns; he may analyze the very concepts of value, morals and action, as well as their cognates; or he may criticize or reconstruct value beliefs, moral norms and action plans.

In other words we distinguish the following levels:

Value systems	Moral codes	Action patterns
Axiology (value theory) (*a*) scientific (*b*) philosophic *Meta-axiology*: philosophy of value concepts and theories	*Ethics* (moral theory) (*a*) scientific (*b*) philosophic *Metaethics*: philosophy of moral concepts and theories	*Praxiology* (action theory) (*a*) scientifico-technical (*b*) philosophic *Metapraxiology*: philosophy of action concepts and theories

The scientific study of human value systems, moral codes and action patterns was initiated in the 19th century by social scientists. One important contribution of these scientists was to suggest some of the biological and social determinants of valuation, morality and behavior patterns. Another was to exhibit a great variety of value systems, moral codes and action patterns across cultures. A third was to show the existence of certain cross-cultural axiological, moral and behavioral invariants underneath that variety — which, not surprisingly, proved the legitimacy of the much-battered concept of human nature.

On the other hand the philosophies of value, morality and action began in classical Antiquity. At least from the time of Socrates on philosophers have grappled with substantive problems about values, morals and actions. In particular they sought goodness criteria and righteousness norms. Some of them, particularly Plato, Aristotle, Aquinas, Hobbes, Locke, Spinoza, Hume, Bentham, Mill and Marx conceived of value theory and ethics as having an intimate relation with social and political philosophy, hence with collective action, in particular social reform.

However, the classical philosophers were notoriously imprecise. For example, Socrates was confused about the good, and Plato about justice. The analytic philosophers, from Moore on, attempted to clarify the basic axiological and ethical concepts, and their successors extended this work to action theory. True, they seldom went farther than to propose definitions, and they never used any advanced formal tools. Still, they succeeded in persuading many philosophers that one should be careful in using such terms as 'good' and 'right'.

Regrettably, in their effort to cleanse axiology, moral philosophy and action theory, most analytic philosophers gutted them. Indeed they shifted from substantive issues to questions of linguistic or conceptual analysis, losing historical perspective in the process. They advised us to analyze, not to evaluate or moralize, let alone act: they told us that we should deal with the language of values, morals and actions, not with valuation, morality or action. As a result most analytic value theorists, moral philosophers and action theorists became gutless, i.e. unwilling or incapable of grappling with any of the axiological, moral or practical problems of our time. Consequently their writings became ineffectual and boring.

The new wave in value theory, moral philosophy and action theory, which was generated in the 1960s by such political events as the civil

rights movement, the fight against poverty and the environmentalist and peace movements, changed all that. Without abandoning analysis, philosophers started to tackle real life issues.

To be sure, there is still much to be done in these fields, for some of the hotly debated issues, such as taxes and abortion, affect only a minority; most treatments of value, morality or action problems are piecemeal rather than being embedded in comprehensive philosophical systems; and many of the analyses are phony, particularly when they involve game theory with payoff matrices the entries of which are invented.

In this book we shall approach in an analytic fashion some real and serious issues concerning values, morals, and action. We shall not only analyze certain key concepts but shall also propose definite substantive principles, and shall attempt to organize these into a theory.

Our principles will not be approved of by those who prefer to remain closeted in academe, and much less by those who — perversely in our view — identify rationality with the exclusive pursuit of private interests, thus giving ethics a bad name. (The selfish do not need morality except as a fig leaf.) But our principles may be appreciated, though not necessarily shared, by people concerned about the current crisis in values and morals, and sensitive to such crucial issues as war, the environment, and social justice.

2. BASIC SCHEMA OF VALUES, NORMS AND ACTIONS

The title of this book sounds Platonic. But its contents are not, for — in line with the Aristotelian and naturalist traditions — it denies the separate existence of good and evil, as well as of right and wrong. Indeed, we treat 'good' and 'bad', 'right' and 'wrong' as adjectives not nouns. These words denote properties of entities or processes, in particular actions, not entities in themselves.

Moreover we adopt the view that the good and the right are sometimes objective and at other times subjective, but at all times relative to people, or other animals, and their circumstances. In particular we hold that animals, in particular people, evaluate, whereas societies do not. However, there are social values, i.e. properties of social groups, that are favorable to the welfare of such groups. But social values result from activities of individuals, in particular from their economic, political and cultural activities.

We also take the commonsensical view that all normal animals strive to attain or retain a state of well-being — which, however, is not the same for all. Consequently normal animals value positively, i.e. they find good, anything they need for their well-being and, in the first place, for their survival. Moreover we postulate that needs and wants — visceral, mental or social — are the very roots of values, and that the function of norms is to protect such values, i.e. to facilitate their realization. We also postulate that we are driven by our values and constrained by our norms, not only by external factors.

However, not all values are on the same footing. There are primary, secondary, and even higher order values, according to the level of needs or wants they originate in. Correspondingly there are basic rights and duties, namely those associated with basic values, and higher order — i.e. less important — rights and duties, i.e. those that correspond to higher order values. As with rights and duties, so with norms and actions: the basic ones are rooted to basic needs, whereas all the others originate in wants, some legitimate and others not. Even such towering desiderata as equality, fraternity, liberty and justice are only ancillary to the right to life and the duty to protect life.

In short, we posit the following schema, to be spelled out through the book.

BASIC NEEDS: SURVIVAL Food, water, shelter, rest, etc.	LEGITIMATE WANTS: WELL-BEING Love, security, activity, advancement, etc.
PRIMARY VALUES Whatever meets basic needs.	SECONDARY VALUES Whatever meets wants.
PRIMARY GOALS Realizing primary values.	SECONDARY GOALS Realizing secondary values.
BASIC RIGHTS AND DUTIES To pursue or help pursue primary goals. E.g., the right to work and the duty to work well.	SECONDARY RIGHTS AND DUTIES To pursue or help pursue secondary goals. E.g., to participate in the responsible management of one's workplace.
PRIMARY NORMS Enjoin us to exercise basic rights or discharge basic duties. Supreme norm: "Enjoy life and help live".	SECONDARY NORMS Enjoin us to exercise secondary rights or discharge secondary duties. E.g., to promote mutual help, equality, and freedom.
PRIMARY ACTIONS Directed at attaining primary goals and, if deliberate, guided by primary norms.	SECONDARY ACTIONS Directed at attaining secondary goals and, if deliberate, guided by secondary norms.

In short, we postulate that values and morals do not hover above everyday life but, on the contrary, originate in our daily struggle to stay alive and attain or retain a state of well-being. Only people who have already met their basic needs can afford to dream of loftier goals. And it so happens that nowadays most human beings can hardly meet their basic needs, let alone realize their aspirations. Worse, the economic greed and political ambition of a few have put the survival of our species at risk. Therefore any value theory and any ethical doctrine that overlooks these facts is at best useless, and at worse a diversion from our most pressing responsibilities.

In light of the preceding we submit that any good moral code, and any correct ethical doctrine, must satisfy the following desiderata:

(i) *axiological soundness*, i.e. presupposing a value system conducive to human survival and development;

(ii) *realism*: dealing with real-life moral conflicts;

(iii) *viability*: possibility of living up to — i.e. designed for normal people not for either saints or psychopaths;

(iv) *agathonist*: seeking the good, hence including the maxim "Enjoy life and help live";

(v) *selftuist*: neither selfish nor altruistic, but combining private and public interests;

(vi) *logical rationality*, i.e. consistency;

(vii) *epistemological soundness*: resorting to normal cognition and making no claim to either infallible intuition or revelation;

(viii) *testability*: capable of being judged by the consequences of the actions ruled by it;

(ix) *corrigibility*: capable of being altered, without losing its essential properties, in the light of new circumstances and new knowledge;

(x) *universality*: capable of being adopted anywhere by anyone.

We shall do our best to comply with this tall order. But before proceeding to do so let us look into the place of axiology, ethics and action theory in our philosophical system.

3. RELATIONS BETWEEN AXIOLOGY, ETHICS AND ACTION THEORY

Axiology is centrally concerned with the good, ethics with the right, and action theory with actions that are both efficient and right. Now, a right action is one that promotes the good, whereas a wrong one promotes

evil. Hence the good is in every regard — conceptually, biologically and technically — prior to the right. Not that the ability to discriminate good from bad suffices to sort out right from wrong. Whereas the former ability is presumably possessed by all animals, only animals possessing a modicum of moral sensibility, intelligence, imagination and social experience can tell right from wrong and, moreover, plan right and efficient actions.

The upshot of the preceding for the relations among the disciplines concerned with the good and the right is clear. Axiology precedes ethics as well as the other disciplines concerning praxis, namely action theory, social (in particular political and legal) philosophy, and socio-technology. Shorter: Axiology precedes practical philosophy and socio-technology.

Kantians and legal positivists disagree: They define the good in terms of the right. So do emotivists, though for a different reason: According to them the good is only a matter of emotion, not cognition, and the right is one of convention, not interests. We reject these alternative views because they overlook the mechanisms of formation of our ideas of right and wrong and because they block any attempts to bring science and technology to bear upon the right conduct of human affairs.

The above considerations about the relations between axiology, ethics and action theory are embedded in the broader picture of the place of these disciplines in our philosophical system, and their relations with the sciences and technologies directly relevant to practical philosophy: See Figure 0.1.

4. THE TASK

We have set ourselves three tasks. The first is constructive: We shall propose certain views on value, morality, and action. Our second task is analytic: We shall analyze the key concepts occurring in our principles (postulates and rules). Our third task is critical: We shall examine critically a number of rival views.

In performing all three tasks we shall make use of some of the results obtained in preceding volumes of their *Treatise*, though no knowledge of them will be assumed. We shall also attempt to remain close to real life and, particularly, to the great issues of our time. In so doing we will depart from the tradition according to which philosophers only write

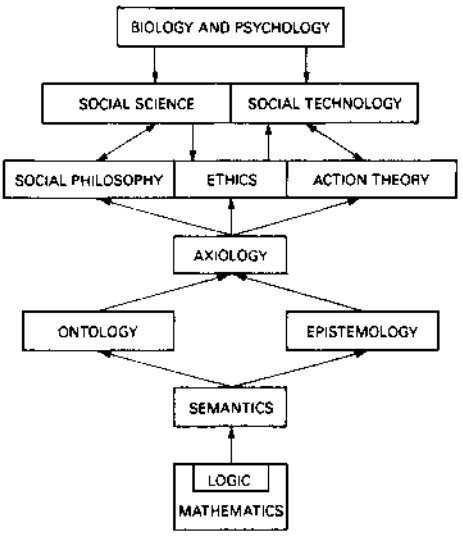


Fig. 0.1. The place of axiology, ethics, action theory and social philosophy in the *Treatise*. Social philosophy encompasses economic, political, legal and cultural philosophy. The union of social philosophy with ethics and action theory may be called *practical philosophy* even though, like every other branch of philosophy, it is eminently conceptual. It is practical only in that it is concerned with deliberate human action, both descriptively and normatively.

for their colleagues. By the same token we shall be working in the tradition of the philosophers and social scientists concerned with improving the lot of their fellow human beings.

PART I

VALUES

CHAPTER 1

ROOTS OF VALUES

Values and morals do not exist by themselves, except for metaphysical idealists such as Plato. It is only for purposes of conceptual analysis that we may find it convenient to feign that they do. Actually there are only valuable or disvaluable objects — valuable, that is, for some organisms in certain states. When we abstract values from their bearers we make the same mistake as when we detach properties from the things possessing them. Likewise there are no morals in themselves. Instead, there are animals which, when behaving according to certain patterns, contribute to the welfare of other animals. We tend to abstract such patterns and call them 'moral norms'.

For instance, when saying that well-being is a biological and psychological value, we mean that, being a survival condition, we evaluate positively some states of physical health and psychological contentment: i.e. we say that well-being is good for us. Likewise when saying that honesty is a moral and social value we mean that we assign honest behavior, nay, honest people, a positive role in social life as well as in keeping our own peace of mind. No organisms, no needs, hence no values. No society, no social behavior, hence no social values, whence no need for moral norms.

In other words, values and morals have biological and social roots: See Figure 1.1. And, no matter how high we climb the tree of abstraction, those roots are still there — unless the tree happens to be dead, which is not uncommon for value theories and moral philosophies. We need to gain some knowledge of such roots in order to satisfy our curiosity concerning the modes of emergence and submergence of values and morals. But we also need such knowledge in order to justify (validate) value claims and moral norms — at least if we are rational enough to value such justification instead of surrendering to such dogmatic stands as nihilism, authoritarianism, emotivism, or intuitionism.

In this chapter we shall explore briefly the main roots of values, and in Ch. 4 those of morals. Our explorations will be brief for two reasons. Firstly, a detailed and serious study of the biopsychological and social

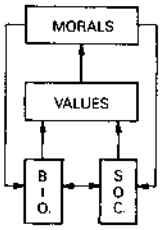


Fig. 1.1. The biological (visceral and mental) and social (economic, political and cultural) roots of values and morals. Example: We value food because it is necessary for survival, and companionship because it is part of our belonging to a society. The two roots, though distinct, are not mutually independent. For example, we often like to eat in company, which company may elicit some changes in the food we choose and the manner in which we eat it.

roots of values and morals behooves biologists, ethologists, psychologists, anthropologists, sociologists, economists, political scientists, and historians, rather than philosophers. Secondly, so far most of these scientists have paid little if any attention to values and morals, because they have been shackled by the philosophical superstitions — common to empiricism and intuitionism — that values and morals are subjective, and that subjective experience lies beyond the ken of science. In fact, they have been told by influential philosophers that there is an unbridgeable chasm between fact (the domain of science) and value (the domain of philosophy and art). Consequently they have believed that they should confine their attention to what is, without meddling into what ought to be. No doubt, this superstition was initially useful to separate the scientific grain from the ideological chaff in the study of society. But now it has become an obstacle to further advances in the understanding of man and in the design of policies and plans aiming at human betterment. Indeed, there is nothing science and technology (in particular sociotechnology) can do to mitigate human misery if they ignore what we ought to value and how we ought to behave.

In this chapter we shall study the nature, kinds, and sources of value. Some of the problems concerning the nature of value and value judgments will be studied at greater depth and length in subsequent chapters.

1. NATURE AND KINDS OF VALUE

1.1 *Nature of Value*

In an idealist metaphysics values exist by themselves above and beyond material things. A physicalist (or vulgar materialist) world-view makes no room for values except perhaps as subjective desires. In an emergent materialist perspective (Vol. 4 and Bunge 1981) there are no values in themselves but there are valuable items wherever there are organisms. According to this view values emerged on our planet about four billion years ago together with the first organisms capable of discriminating what was good for them, i.e. what was favorable to their survival, from what was not.

In the real world there are no values in themselves, anymore than there are shapes or motions in themselves. Instead, there are organisms that evaluate certain things (among them themselves) when they, as well as the things valued, are in certain states or undergo certain changes. In other words, whatever is valuable is so for some organisms in certain states, particularly states of deprivation that originate drives which motivate action.

Values are then relational or mutual properties, in the same boat with separation and adaptation, rather than intrinsic properties such as number of components and chemical composition (Bunge 1962a). The relational view of values contrasts with the absolutist view according to which values either exist by themselves or inhere in the things valued — a view espoused by Moore (1903) and others. Value absolutism is mistaken because it overlooks the facts that (*a*) there are no values without evaluating organisms, (*b*) values change with the internal and external circumstances of the evaluator, and (*c*) human value systems are culture-bound and therefore historically changeable — so much so that we approve of many items our parents disapproved of, and conversely. (However, some values are cross-cultural, i.e. they occur in all viable value systems. We shall come back to this point in Ch. 2, Sect. 2.1.)

Value theory is of course centrally concerned with value judgments. From a logical point of view a value judgment is a value of a valuation predicate for a given individual or *n*-tuple of individuals. Thus "Milk is good for Baby" results from applying the predicate "good" to the

ordered pair ⟨milk, Baby⟩. But then all predicates, whether or not they are valuation predicates, can be analyzed as functions from collections of n-tuples of individuals to sets of propositions (Vol. 1, Ch. 1, Sect. 1.3).

"Good", a typical valuation predicate, can be applied not only to individuals, such as this book, but also to predicates, as when we say that altruism is good. In the latter case the evaluation predicate is of the second order: it is a property of a property, and therefore it comes under the sway of the higher order predicate calculus. For example, "good teacher" qualifies "teacher", a first order predicate, and the two together constitute a second order predicate. But there is also a first order analysis of the predicate in question. Indeed, by splitting the set of all teachers into the competent (C) and the incompetent ($\bar{C}$) ones, we succeed in analyzing "Liz is a good teacher" as "Liz belongs to C". This disposes of the intuitionist claim that "good teacher" (and for that matter every evaluation predicate) is unanalyzable. It also refutes the ordinary language philosophy thesis that there is a grammatical difference between "good" and "teacher": that whereas 'teacher' is an ordinary or predicative adjective, 'good' would be a sui generis or attributive one (Geach 1956, Williams 1972). There is no logical or grammatical difference between evaluation predicates and descriptive predicates.

A preliminary analysis of value judgments (Bunge 1962a) yields the result that the simplest among them are of the form "a is valuable for b", or "b values a". (The former exemplifies an objective value statement, the latter one that may be subjective.) A closer examination is bound to disclose complexity: it is likely to result in formulas of the type: a is valuable in respect b for organism c in circumstance d, where the word 'respect' is a synonym for 'property' or 'feature', and the term 'circumstance' denotes the states of both the object a, or value-bearer, and the subject c of valuation. A finer analysis may yield further relata (variables), as e.g. in

> a is valuable in respect b for organism c in circumstance d with goal e and in the light of the body of knowledge f.

In short, value judgments involve at least binary relations: they are of the forms Vab, $Vabc$, . . . , $Vabc \ldots n$. In the case when we succeed in quantitating values, the relation becomes a function from n-tuples of objects to numbers. Example: $V(a, b, c, d, u) = v$, where u is a suitable unit, and v the numerical value c attributes a in respect b and circum-

stance *d*. In other words, the general form of a numerical value function is

$$V: A \times B \times \ldots N \times U \rightarrow \mathbb{R},$$

where A is a collection of value bearers, i.e. of valuable or disvaluable objects, B a collection of organisms, and the remaining factors in the cartesian product, up to N, may be collections of things, properties, states, or processes (in particular brain processes), whereas U is a set of units, and $\mathbb{R}$ the set of real numbers. However, quantifiable values are exceptional.

Note the following points. Firstly, values are not things, states of things, or processes in things: these can only be value-bearers of objects of valuation. Values are *relational* (or *mutual*) *properties* attributed to objects of certain kinds by organisms of certain types and in certain states. However, we may abstract values from their bearers and speak of *truth* (instead of true propositions), *beauty* (instead of beautiful things or processes), *fairness* (instead of fair actions or persons), and so on. We may do it in order to gain in generality and as long as abstraction is not mistaken for reification. Such a mistake, namely the idea that values (and the corresponding norms) exist by themselves, may be dubbed the *idealistic fallacy*.

Secondly, because values are relational properties, there are no intrinsic or absolute values representable by unary predicates such as "alive" or "bankrupt". A phrase such as '*a* is valuable', or '*Va*' for short, is incomplete: it must be interpreted as an abbreviation for '*a* is valuable in some respect *x* for some organism *y* in some circumstance *z*'. Thirdly, because "relational" is not the same as "subjective" (Vol. 7, Ch. 2, Sect. 3.1), the thesis that values are relational properties differs from the view that all values are subjective, such as the feelings of pride and shame. Only some values, particularly the aesthetic ones, are subjective, in the sense that there are hardly any objective standards enabling us to judge the corresponding evaluations.

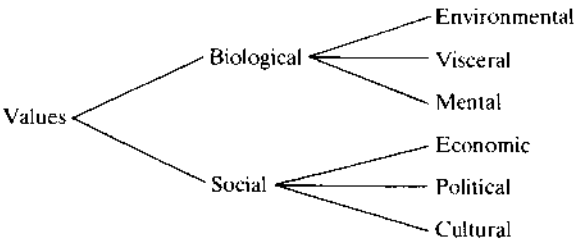
Whether objective (like nutritive value) or subjective (like happiness), all values are *secondary* properties for depending on some animal subject or other. In this regard they are similar to color and loudness, and quite different from primary properties such as wavelength, sound intensity, and chemical or social composition. (Recall Vol. 3, Ch. 2, Sect. 2.2.) Values may also be regarded as systemic or *emergent*

properties in that they are properties of systems that their components (the valued object and the evaluating subject) lack when in separation. (Frondizi 1963 called them *gestalt* properties.) In sum, our view of values is relativistic but not subjectivistic. More in Ch. 3, Sect. 1.3.

Finally, note that we have placed no restriction on the kind of objects that can be evaluated, i.e. on the value-bearers. In principle anything can be attributed a value: thing, state, event, process, feeling, disposition, experience, concept, procedure, or what have you. Not only "positive" items such as things and states of things, but also "negative" ones such as their absence or disappearance can be the object of valuation. For example, the loss of life and the absence of educational facilities are generally regarded as disvaluable. They are so regarded because the corresponding "positive" objects, e.g. life and educational facilities, are deemed to be good. Likewise the end of a war, or of political persecution, are regarded as good because the processes themselves are attributed a negative value.

1.2 *Kinds of Value*

We shall partition the collection of all values into two large families: biological and social. In turn, we divide biological values into environmental (e.g. clean air), visceral (e.g. adequate food), and mental (e.g. feeling needed). And we admit three genera of social value: economic (e.g. productivity), political (e.g. self-government), and cultural (e.g. the advancement of knowledge). In turn, every genus may be split into several species. For instance, the cultural values may be grouped into cognitive, moral, and aesthetic. In short, we adopt the following value divisions:



Some objects are polyvalent, i.e. they are valuable or disvaluable in more than one respect. For example, a loaf of bread is both biologically

and economically valuable. A piece of jewelry is psychologically, economically and perhaps also aesthetically valuable but, since it meets no biological need, its visceral value is nil. A political rally has a political value and, indirectly, a psychological and perhaps an economic one as well. Because one and the same object may be valuable (or disvaluable) in more than one way, it is not possible to partition the collection of all value-bearers into mutually disjoint classes. Hence, although we can class *values* (or value functions), we cannot class the value-*bearers* other than in biologically or sociologically meaningful ways.

The above tripartite division of social values into economic, political and cultural parallels our analysis of society into its economy, polity, and culture (Vol. 4, Ch. 5, Sect. 2.4). Note that admitting that there are different kinds of social value does not entail their mutual independence. In particular the moral values, which may be included among the cultural ones, are not independent of the economic values, which in turn are (or ought to be) constrained by certain moral norms. For example -- as a character of G. B. Shaw said — the destitute cannot afford to be honest; and productivity ought not to be sought at the cost of welfare.

Again, the tripartite division of cultural values into cognitive, moral and aesthetic does not entail their mutual independence. For example, it takes some learning to appreciate aesthetic values, and some moral courage to expose fake science. Likewise it usually takes some knowledge, in addition to some moral sensibility, to realize that certain problems are of the moral kind, and far more knowledge and moral sensibility are needed to come up with correct solutions to them. Still, the mutual dependence of values of different types does not prevent them from being distinct. (This exemplifies a logically necessary platitude: Y depends upon X if and only if (a) X is not the same as Y, and (b) some changes in X are accompanied by changes in Y.)

The point of distinguishing and classing values is not just to bring some tidyness into the fuzzy domain of value theory. The main point is to avoid attempting to compare values that are non-comparable, such as those of a miner's day work with writing a poem, proving a theorem, or playing a soccer match. A miner's day work may be compared with a clerk's or a manager's, a poem with another poem, and so on. This is obvious, yet it contradicts a basic tacit assumption of utilitarian philosophy, namely that all items, irrespective of their type, can be compared and ranked.

Even if we succeeded in constructing one numerical utility function for every evaluator, it would not do to apply it to objects belonging to disjoint categories. And yet the assumption that a single utility (or subjective value) function suffices for everything with respect to any person, is a basic postulate of mainstream economics, decision theory, and contemporary utilitarianism. Granted, the postulate is not too far-fetched in mercantilist societies, where nearly everything can be bought and sold — even loyalty and affection. But the point is that moral philosophers ought to indicate that this state of affairs is abnormal, hence it ought to be corrected. In a rational and just society not everything can be traded for something else: some things are inalienable, and only some things can be traded for certain other things. Shorter: Price, though important in the market place, is irrelevant to values and morals. We shall return to this question in Sect. 3.1.

So much, for the time being, for the variety of kinds of value. In what follows we shall attempt to justify the above partitions as well as to ferret out the peculiarities of each kind of value.

1.3 *Summary*

Values are not entities but properties of certain items and, more particularly, they are mutual or relational rather than intrinsic properties. More precisely, values are relations between certain objects (things or processes) and organisms. The former are the value bearers, the latter their (actual or potential) users. In the case of humans, values fall into two main categories: biological and social. In other words, whatever we value, we do so either because it meets a biological or a social need or want.

Things of one and the same kind can be evaluated in a number of different respects. For example, a mountain may have both an economic and an aesthetic value, and neither is reducible to the other; again, an album of junk music may fetch a high price. In other words, we must distinguish various value relations and functions. This holds, a fortiori, for items of different kinds. For example, even if a bouquet of flowers and a dinner bear the same price tag, their aesthetic and biological worth are not the same: they are hardly comparable. In short, there is no such thing as a single value ranking, let alone a single value function.

2. VALUE SOURCES

2.1 *Biovalue*

So far we have taken it for granted that certain items are valuable to organisms of certain kinds when in certain states. In this and the following sections we shall ask *why* certain objects are valued. It won't do to reply that we value whatever we desire, because we must reckon not only with wants but also, nay mainly, with basic needs, whether or not we happen to wish to meet them. (In fact we shall postulate that what makes something valuable is its ability to meet some need or want, regardless of whether the object in question is scarce. For similar approaches see Hull 1944, Handy 1962, and Parra-Luna 1983.)

Nor will it do to ask the economist for an answer to our question, for several reasons. Firstly, economists restrict the category of valuable items to commodities, i.e. goods and services; they are not interested in non-marketable items, such as clear skies and neighborly feelings, except perhaps as possible stimuli or inhibitors of production or consumption. Secondly, they limit their attention to the exchange value or price of commodities regardless of their objective biological or social value in use. Third, even so they still owe us a true theory of the evaluation or pricing mechanism. All that mainstream economists tell us is that commodity X is worth P dollars if and only if the buyers in an ideally free (purely competitive) market are prepared to pay P dollars for X. (Hence, if X finds no buyers, X is declared worthless.) But this answer dodges the question whether P is fair, excessive, or too low. In addition, it ignores the price-tagging mechanism, which is not exclusively a function of demand, and sometimes involves dumping, collusion, and other immoral practices. In short, economics is not in a position to tell us why we value certain objects. Far from investigating this problem, it postulates that everybody values something. Worse, most neoclassical economists postulate, without a shred of empirical evidence, that every person can rank the items in an arbitrary collection, or even assign them numerical utilities. (Recall Sect. 1.2.)

Let us move from social to natural science. Biology employs more or less explicitly a concept of value that may be regarded as the most basic, though not the only, axiological concept. This concept may be defined as follows:

DEFINITION 1.1 If a is a feature (organ, property, process, etc.) of

an organism b, or of the environment e of b, then *a is valuable to b in e* $=_{df}$ the possession of, or access to, a favors the survival of b in e. Otherwise a is either neutral or disvaluable to b in e.

The valuable or disvaluable feature in question may help or hinder the organism in either of two ways: internally (physiologically) or externally (environmentally). In the former case what improves or worsens is the health of the organism in the given environment. In the latter case the feature in question improves or worsens the chances of survival of the organism when involved in interactions with either conspecifics or members of other species. Accordingly we distinguish *physiological* from *selective* value. At first sight these two are not independent: it looks as though physiological value were to ensure environmental or selective value. Not so, for a perfectly healthy organism may fall prey to an organism of another species.

Definition 1.1 refers to individuals: it identifies biological value with that which favors the survival of the individual. It makes no reference to the biospecies to which the individual belongs, or to the population of which it is a part. Hence it makes room for features that are unique to the individual in question, and therefore give it an edge or a handicap. To be sure, biologists often talk about something being valuable or disvaluable to a biospecies. This is a mistake, for biospecies are not concrete things but collections of such, and collections are concepts, hence they are not in the survival game. (Recall Vol. 4, Ch. 3, Sect. 1.3, or Vol. 7, Part 2, Ch. 3, Sect. 2.2.) Therefore the phrase 'X is valuable to biospecies Y' must be understood as short for 'X is valuable to every member of the biospecies Y', or as 'X favors the survival and reproduction of members of biospecies Y'.

Our concept of biovalue (Definition 1.1) differs from that of biological (or Darwinian) fitness, which occurs in evolutionary biology. In the latter "fitness" is defined as survival or adaptive value, which in turn is equated with fecundity or, more precisely, with the size of the offspring that an organism of a species reproduces faithfully ("true to" the defining features of the species). We find no use for this notion in value theory for several reasons. Firstly, it has yet to be exactified in a manner that commands the consensus of the scientific community. Secondly, fertility is an indicator of fitness not a synonym for it. Thirdly, the equation of fitness with fertility presupposes an environment with unlimited resources, where a biopopulation can increase indefinitely in numbers provided it prevails over its competitors. But as a matter of fact every natural environment is limited; hence, by

reproducing fast and in great numbers, the organisms of a given species may soon deplete and pollute their niche and thus bring their own extinction upon themselves. A high fertility or Darwinian fitness may therefore be fatal to a biospecies. The optimal fertility value of a biopopulation is, except in the cases of endangered species, well below the maximum. This is particularly clear in the case of humankind, which is suffering acutely from overpopulation. Such excessive reproductive success is threatening the very viability of humankind: though valuable up until a couple of centuries ago, it has now become disvaluable for having resulted in a world population that is far above the carrying capacity of our planet. However, let us go back to our theme.

Whatever favors the survival of an organism, hence is biovaluable to it, contributes to its health; conversely, whatever is detrimental to its health is biologically disvaluable to it even though it may be valuable in other respects. We must then supplement Definition 1.1 with a definition containing explicitly the concept of health of an organism of a given species. This concept was introduced by Definition 3.6 in Vol. 4. The gist of it was that health is the complement of sickness, which in turn equals the relative departure of an organism's functions from their physiological optimal values. All this was relativized to the environment, for different environments are likely to shift the values of both the actual and the normal (or optimal) functions.

The interest of all this for value theory is that it supplies an objective quantitative measure of biological value. The intuitive idea is this. Let a be a feature of an organism b or of its environment e. Then the value of a to b in e equals the degree of health of b in e when equipped with a or (in case a is a feature of e) when having access to a, minus the degree of health of b in e when deprived of a. More precisely, we propose the following slight modification of Definition 3.9 in Vol. 4:

DEFINITION 1.2 Let $H_A: B \times E \times T \to \mathbb{R}$ be the health function for organisms of kind B, in environments of type E, when the B's are in possession of, or have access to, features of kind A. Similarly, call $H_{\bar{A}}: B \times E \times T \to \mathbb{R}$ the corresponding health function of B's in E's when the A's are missing. In both cases, T is a subset of the real line $\mathbb{R}$, and every element t of T is interpreted as an instant of time. Then *the value of A for B in E* is the function $V: A \times B \times E \times T \to \mathbb{R}$ such that, for any a in A, any b in B, and any t in T,

$$V(a, b, e, t) = H_A(b, e, t) - H_{\bar{A}}(b,e,t),$$

which is *the value of feature a for organism b in environment e at time t.*

Since health ranges between 0 and 1, biological values lie between −1 and 1. In particular,

a is *maximally valuable* to *b* in *e* at *t* iff $H_A(b, e, t) = 1$ and $H_{\bar{A}}(b, e, t) = 0$;

a is *worthless* to *b* in *e* at *t* iff $H_A(b, e, t) = H_{\bar{A}}(b, e, t)$;

a is *maximally disvaluable* to *b* in *e* at *t* iff $H_A(b, e, t) = 0$ and $H_{\bar{A}}(b, e, t) = 1$.

So much for our first definitions. Next we make two assumptions so obvious that they are hardly ever stated explicitly:

POSTULATE 1.1 All organisms possess features (components, states or processes) that are valuable, and others that are disvaluable, in some environments.

POSTULATE 1.2 All environments have features that are valuable, and others disavaluable, for organisms of some species.

Note that the first axiom, though a platitude, is not a tautology. Moreover, from a radical reductionist viewpoint — which is not ours — it makes no sense to attribute values to components, states or changes of state of an organism, let alone to its environment, particularly to the physical components of the latter. Nor is the second axiom tautologous, for it draws our attention to the exceptional fitness of our terrestrial environment — hence to the need to protect it from our own depredations.

We are now ready for the key convention in this section:

DEFINITION 1.3 Let *x* be an item (thing or process) in organism *b* or in the environment of *b*. Then *x* is *healthwise good* for *b* if and only if *x* contributes to keeping *b* in good health.

An equivalent definition is this: Whatever contributes to the homeostasis (approximate constancy or balance of the *milieu intérieur*) of an organism is healthwise good for the latter. Shorter: Homeostasis "serves" health, hence self-preservation, whence it is biologically good for the organism in question. (No teleology here: Those organisms whose homeostatic mechanisms fail, whether for internal or external causes, get sick or even die.)

Note that ours is not a definition of "good" but of the narrower concept of good for health (or survival). Only very sick people, like Nietzsche, would claim that health alone counts and would consequently propose a biologistic value theory — one in which even truth would be reduced to survival value. Normal people know that there are nonbiological (e.g. cultural) values, and that sometimes biological needs

must be postponed for others. Certainly, *primum vivere, deinde philosophari*, but human life is not only eating and drinking: it is also caring for others, learning, playing, and much more.

Finally, a few words about the nature/nurture controversy in relation to values. We are born liking and desiring certain things, such as warm milk and body contact, and disliking and rejecting others, such as feeling too warm or hearing loud noises. Such basic values arise from the corresponding basic needs, meeting which is necessary to stay healthy. But other values, in particular most of the social ones, are learned as we grow up, the same way we learn to walk or speak. And we may not learn such values as truth and beauty unless we happen to develop in an environment where truth and beauty are appreciated.

The thesis that all values are independent of experience, hence cannot be learned, is just as fantastic as the thesis that we are born with a substantial body of intellectual and liguistic knowledge, which experience can only channel or hone. Only a few basic values, first of all survival, "are in our genes". The healthy newly born craves mother's milk not steak or passion fruit; but given the opportunity he may acquire a taste for either. He is naturally active but does not go straight from the nursery to the soccer field or the ski slope. He is naturally inquisitive but at birth does not know anything, not even that knowledge is valuable. He is a natural evaluator, but he has to learn, often the hard way, the social values that will make it possible for him to belong to a certain social group.

To sum up this section: The source of biovalue is biological need. I.e., whatever an organism needs to keep healthy is good for it, at least on the biological side. This thesis will be generalized in Sect. 2.4 to read: The source of every value is some need or want. This is an example of what dons out of touch with life call the "naturalistic fallacy", following Moore (1903).

2.2 *Psychovalue*

So far we have dealt with organisms in general, claiming that certain biofunctions (such as the consumption or the synthesis of glucose), as well as certain environmental items (such as water and light), are objectively valuable for them. From now on we shall restrict our considerations to animals, for these alone are capable of evaluating some of their internal states, as well as some environmental states, as favorable, unfavorable, or indifferent to them, as well as to act accord-

ingly. To put it anthropomorphically: Only animals can know (some of) what is good or bad for them. (But of course only to the higher animals may we attribute cognitive capacities: recall Vol. 4, Ch. 4, Sect. 4, or see Bunge 1980, or Bunge & Ardila 1987.) We posit then

POSTULATE 1.3 All animals have the ability to evaluate some of their own internal states and some environmental inputs, as well as the ability to act so as either to preserve or alter their own internal states, their environment, or both.

(Actually this hypothesis is too weak, for some bacteria — which are far below the animal kingdom, discriminate between beneficial and nocent stimuli of certain kinds, e.g. by moving up a nutrient gradient and down an acid one (chemotaxis); they may do this with the help of a molecular memory mechanism: Koshland 1977.)

Evaluation and motility allow animals to take action to improve their welfare or even to save their lives. They endow animals with a certain degree of freedom from some environmental pressures, as well as with some freedom to act in their own interests and, in the case of some higher animals, in the interests of their conspecifics as well. On the other hand plants and fungi, lacking valuation sensors as well as overall motility, are far more at the mercy of their environment. In short, the valuation ability has a great survival value.

(Physicalists may object to talking of values with reference to primitive organisms. They may argue that, after all, one might also claim that candles need, hence value, oxygen, or that electric bulbs need, hence value, electric current. But this would be biocentric talk, for candles and light bulbs last the less, the more they draw from their environment, whereas organisms live the longer, the more efficient their metabolism and, in the case of animals, also the better adapted their behavior. In any event candles and bulbs burn, do not live.)

The statement that an animal can evaluate items of certain kinds amounts to the proposition that it has a value system or set of preferences — e.g. that it prefers warmth to cold, or bananas to apples. This concept was elucidated by Definition 4.27 in Vol. 4; we reproduce it here in a somewhat improved form:

DEFINITION 1.4 Let S be a collection of items and b an animal capable of comparing them pairwise. Call S^* the partition of S into the family of equivalence classes, every one of which consists of equivalent objects (e.g. large ripe bananas). The ordered pair $\mathscr{V}_b = \langle S^*, \succeq \rangle$ is a *value system* of b in a given state in a given environment if, and only if,

(i) b can detect any member of S, discriminate it from all other items in S, and lump it together with its equivalents;

(ii) for any two members x and y of S^*, b either prefers x to y ($x \succ_b y$) or conversely ($y \succ_b x$) or neither ($x \sim_b y$) at a given time.

Belonging to an animal species involves, among other features, sharing some values with all conspecifics. That is, even though the individuals in a given biospecies may differ considerably from one another, and even though valuation is an individual affair, every animal species has a characteristic value system, no matter how idiosyncratic the value systems of its members may be. If they did not share some values they would not have the same basic needs, hence they would not belong to the same species. We elucidate the notion of a species-specific value system in terms of the individual preference relation $\succsim_b$ as follows.

DEFINITION 1.5 Let S be a collection of items and K an animal species the members of which are capable of comparing pairwise those items and of lumping together equivalent items. Call S^* the family of equivalence classes of S's. The ordered pair $\mathscr{V}_K = \langle S^*, \succsim_K \rangle$ is the K *value system* in a given environment and at a given time if, and only if, for any x and y in S^*,

$$x \succsim_K y \text{ if and only if } x \succsim_b y \text{ for all } b \text{ in } K$$

in the given environment and at the given time.

The main value of the last two definitions is that they set the stage for

POSTULATE 1.4 Every animal b has its own value system or preference ranking $\mathscr{V}_b$, and every animal species K has its own species value system $\mathscr{V}_K$.

This innocent-looking hypothesis has the consequence that there are universal human values, i.e. values shared by all humans regardless of their differences:

COROLLARY 1.1 The human species has a value system of its own.

Our next assumption is that animals only value environmental items insofar as these are instrumental in preserving or attaining certain internal states, in particular states of health. Thus ultimately *what is valued is being in certain states.* In other words, the preferences over environmental items are due to preferences over internal states (Bunge & Ardila 1987 Sect. 8.2.) This hypothesis can be formulated thus:

POSTULATE 1.5 Let S_K be the collection of internal states in which members of the animal species K can be, and S_E the collection of environmental items accessible to the K's. There is an injection φ: $S_E \to S_K$ from environmental items to internal organismic states such that, for every individual b of species K,

> if e and f are in S_E, then: $e \succsim_b f$ if and only if $\varphi(e) \succsim_b \varphi(f)$.

Why should an organism prefer to be in one state rather than in another? We take a clue from the neobehaviorist psychologist Hull (1944): b prefers state $s = \varphi(e)$ to state $t = \varphi(f)$ just in case the $t \mapsto s$ transition is accompanied by a reduction in a primary drive of b's. We adopt this hypothesis and turn it into

POSTULATE 1.6 If s and t are internal states of an organism b, then $s \succ_b t$ if and only if the transition from t to s is accompanied by a reduction in some need or want of b's.

By associating environmental items (things or processes) with their own internal states, and transitions between such states with need or want reductions, the animals endowed with learning abilities can learn new environmental item-internal state associations, and thus change their value systems. This occurs both in the course of individual development and of that of the evolution of animal populations. We compress this idea into

POSTULATE 1.7 All animal species alter their value systems in the course of evolution, and all individual animals can modify their individual preferences (or value systems) in the course of their lifetimes.

Now, learning is not always advantageous: in fact one often learns maladaptive behavior patterns, such as taking drugs or resorting to violence in the face of every conflict. For example, a rat will prefer receiving mild electric stimulation to its subcortical pleasure center, to eating (Olds and Milner 1954); and Rhesus monkeys given the choice between food and cocaine prefer the latter (Aigner & Balster 1978). These facts force us to distinguish *psychovalues* (psychological values) from *biovalues*. The biovalue of item a for animal b in a given state is the objective value that a possesses for b when in that state, whereas the psychovalue of a for b is the value that b *attributes* a — not always for its own good.

A discrepancy between a psychovalue and a biovalue may become so large as to constitute an internal conflict, even a tragedy. The existence of such internal conflicts was traditionally understood as the perpetual struggle between spirit (or soul or mind) and matter — except

that in the cases of drug addiction, masochism, sadism, power addiction, and other vices, the allegedly immaterial spirit is manifestly far weaker than the material body. The scientific explanation proposed by biopsychology is quite different: Every conflict between a psychovalue and a biovalue is an instance of the dominance of one part of the brain (the one that learned the maladaptive behavior pattern) over the rest of the body.

The mere existence of discrepancies between values of the two kinds should warn us against the (operationist and behaviorist) temptation of inferring (objective) values from (manifest or "revealed") preferences — a common mistake among moral philosophers and economists. The two value systems must be distinguished even though both are ultimately rooted in biological processes. They are different because they occur in different parts of the body; in particular, psychovaluation is a physiological process occurring only in certain parts of the brain.

In any event, humans and other higher animals value certain items even if these do not meet some of their basic biological needs. Such animals have wants, desires, or even urges (compulsive desires) that may or may not match their biological needs, and thus may or may not contribute to their health. (For example, *b* may want *x*, which *b* needs to survive, as well as *y*, which is bad for *b*'s health.) We take it that the concept of want, wish, or desire, can be explained scientifically in terms of drive, motivation, or pleasure, and use it to frame

DEFINITION 1.6 Let *x* be an item (thing or process) internal or external to organism *b* endowed with mental abilities. We stipulate that *x* is *psychologically valuable* for *b* in circumstance *c* if and only if *b* desires or wants *x* when *c* is the case.

Now, as noted above, not everything psychovaluable is good for us in all respects. Therefore we must distinguish between psychologically legitimate and illegitimate wants:

DEFINITION 1.7 If item *x* is psychologically valuable to animal *b* in circumstance *c*, then *x* is a *psychologically legitimate want* (or desire or wish or aspiration) of *b* in *c* if and only if *x* contributes to the long-term health of *b*. Otherwise *x* is *psychologically illegitimate*.

This is not a definition of a fully legitimate want, but only of a psychologically legitimate one: a full justification of a desire, as different from a mere whim, requires that it meets certain social requirements. However, this is a matter for the next section.

We can now tackle one of the oldest and most persistent problems in value theory, namely Plotinus's: Do we desire what is good, or do we call 'good' that which we happen to desire? Spinoza (1677, Part III,

Comment on Prop. IX) held that we judge good whatever we desire, not the other way round. This is in fact the case with very young children: they judge all desirable things to be good — until they learn that some of them, though still desirable, are bad for their health or their social standing. Growing up and, in particular, the maturation of moral conscience, involves learning what is objectively good for ourselves and others, and putting up with burdens and pains for the sake of goodness. The upshot is that sometimes we desire what we believe to be good, and at other times we judge good what we desire. A perfect balance between these two inclinations is only attained when the good and the desired coincide. When they do not we face a value conflict. We postpone the study of value conflict to Ch. 2, Sect. 2.

So far we have not needed the notion of goal-seeking behavior: most animal behavior is automatic, even when it involves correct (i.e. life preserving) valuation. However, the higher animals, or at least the primates, are capable of performing voluntary (intentional) actions on the strength of prior evaluations. As conceived by physiological psychologists, the will is not an immaterial entity or a property of an immaterial mind, but a neural activity. Animal b wills action a if and only if b forms the purpose of doing a. By monitoring the firing of neurons preceding the performance of voluntary actions it has been possible to locate the will in the frontal lobes. (See e.g. Evarts, Shinoda & Wise 1984.) It makes then good scientific sense to acknowledge free will and characterize it by means of

DEFINITION 1.8 An animal acts of its own *free will* (or simply *freely*) if and only if its action is voluntary (or spontaneous) rather than either genetically programmed or compelled by external stimuli.

An animal endowed with a will of its own may, within bounds, choose to do what it wants. (That a particular choice may prove to be inconvenient to the individual or to others is another matter. If it does not have a fatal outcome, the animal may learn not to repeat the bad choice. For example, a single trial may teach a rat to avoid food of a certain kind.) The concept of choice, central to moral philosophy and social science, was characterized by Definition 4.28 in Vol. 4:

DEFINITION 1.9 Let $\mathscr{V}_b = \langle S, \succeq_b \rangle$ be a value system for an animal b at a given time (i.e. in a certain state), and call $A \subset S$ the set of alternative courses of action open to b at the time. We say that b *chooses* (or *selects*) option x in A if and only if

(i) it is possible for b to pick (i.e. do) freely any alternative in A (i.e. if b has both the ability and the opportunity of taking freely any of the courses of action in A);

(ii) b prefers x to any other options in A; and

(iii) b actually picks (i.e. does) x.

Choice patterns vary in the course of time due to changing circumstances (opportunities, needs, and wants) as well as of a result of learning. In particular the animal may learn, often by blind trial and costly error, to improve its choices, e.g. to seek or avoid the company of other individuals. But in all cases there is choice proper only if there is some freedom to act (or active freedom): without the latter the animal acts instinctively or on cue.

All of the higher animals enjoy *some* freedom, whence they are capable of *some* choices. But these are always bounded by ability and circumstance, particularly by environmental (natural or social) constraints. In some cases our choices are restricted to such dramatic options as starve or steal, flee or fight, shoot or be shot. The claim that we are or can become *totally* free to choose whatever we please is sheer theological or economic dogma. (See Vol. 7, Part 2, Ch. 4, Sect. 5.2.)

2.3 *Sociovalue*

In this section we shall refer exclusively to gregarious animals. For such animals sociality itself is valuable and enjoyable, for they could hardly survive on their own. In fact they need one another even when adult, and such need is the ultimate source of social values (such as peace) and, in the case of some animals, that of moral norms as well. The need for sociality is manifested in a variety of prosocial behavior patterns, such as parental care, tolerance, mutual help, and team work. And, among the social primates, prosocial behavior takes additional forms, such as division of labor and the erection, maintenance, reform, or dismantling of social organizations. On the other hand antisocial behavior, in particular selfishness, cheating, betraying, hoarding, and systematic violence against members of the same group, is disvaluable and consequently discouraged. Any society that tolerates frequent antisocial behavior is in for extinction. See Table 1.1.

Two of the concepts occurring in the preceding are clarified by

DEFINITION 1.10 The social behavior an individual engages in is

(i) *prosocial* if and only if it helps other members of the same society keep or improve their health, or meet their psychologically legitimate wants;

(ii) *antisocial* if and only if it hinders other members of its own society keep or improve their health, or meet their psychologically legitimate wants;

(iii) *socially neutral* if and only if it is neither prosocial nor antisocial.

TABLE 1.1. Examples of prosocial and antisocial feelings, attitudes and actions. Note the distinction between moral and nonmoral items. And note that some of them are not mutually exclusive. Thus there are love-hate and cooperation-competition relationships, mock fighting, and lying for the protection of the weak.

Prosocial	Antisocial
Moral	
Benevolence	Malevolence
Compassion	Cruelty
Concern for others	Indifference to others
Cooperation	Defection
Empathy	Anempathy
Fairness	Unfairness
Helping	Attacking
Loyalty	Betrayal
Reciprocity	Selfishness
Sharing	Hoarding
Nonmoral	
Admiration	Contempt
Friendship	Enmity
Gregariousness	Withdrawal
Hospitality	Inhospitality
Love	Hate
Parental care	Parental neglect
Play	Fight
Promise	Threat
Sympathy	Antipathy
Team work	Solitary work

Prosocial behavior, in particular the caring of the young, is at least as conspicuous as aggression in the animal world. In primates, many of the caregiving skills, far from being inborn, are learned, as shown by social isolation experiments; likewise mutual help and aggression are often learned, usually by imitation. And in all cases there are large individual differences. Both such differences and the learned nature of much of prosocial and antisocial behavior refute the sociobiological hypothesis that such behavior patterns are genetically determined and, moreover, have a single goal, namely to perpetuate the individual's genes. (See Zahn-Waxler, Cummings & Ianotti Eds. 1986, and Olweus, Block & Radke-Yarrow Eds. 1986.)

Now, some prosocial actions are socially disvaluable (e.g. complicity with criminals), whereas some antisocial actions are socially valuable (e.g. rebellion against oppression). This shows that we cannot equate "socially valuable" with "prosocial behavior". It will take us some time to arrive at the notion of social good (or good society), which will be introduced in Ch. 2, Sect. 1.4. Before tackling this problem we must turn from individual behavior to the behavior or working of entire social systems, such as families, gangs, firms, and states.

Whereas all biovalues and psychovalues are individual, some social values are individual while others are social or systemic, in the sense that they are attributed to social systems. Of course the evaluators themselves are individuals: social groups lack the brains necessary to perform evaluations. But sometimes the evaluators appraise entire social systems. For example, on the one hand productive work is an individual activity even when performed by a team, and it may be valuable for society as well as for the individual. On the other hand a public transit system, a hospital, or a school, has needs (hence values) and meets needs (hence values) as a whole. Thus, a public transit system needs vehicles and energy, as well as a work force and a management, and it can serve the members of a community only if its human components do competently their assigned jobs in a coordinated manner, and if the users of the system cooperate. The preceding can be compressed into

DEFINITION 1.11 Any bit of social behavior, and any social group, that preserves the integrity of a society, is *valuable* to the latter.

This is nothing but the social parallel to the principle that whatever contributes to the survival of an organism is valuable to the latter. ("Parallel" and not "identical" or even "a particular case" because societies are not alive.) Note however that what is valuable to a society as a whole may not be valuable to all of its members. For example, a criminal youth detention center is valuable to society as a whole even if it is not highly valued by its inmates. And a dictatorial government, though valuable to a theocratic, military, political, economic or bureaucratic caste, is disvaluable to most of its subjects. The crucial question at this point is not so much that of the functionalist anthropologists and sociologists, namely 'What promotes the preservation of society?'. The key question is whether a given social system is valuable to its members and to mankind as a whole. However, before answering this question we must insist on the systemic nature of whatever is valuable to a social group as a whole.

What is valuable to a social group as such cannot be distributed

among either the members of the group or those who benefit from it: like public parks and public utilities, it is *indivisible*. Still, even supraindividual values are such because there are individuals who perform such evaluations on the strength of the benefits or burdens they receive from the social system in question. In other words, all social values are rooted to individual biovalues and psychovalues. Social systems, from the family to the international organization, are built, kept or reformed to meet what are ultimately individual needs or wants, legitimate or illegitimate. When they cease to meet such needs or wants they cease being valuable; and when this happens the time is ripe to reform or dismantle them. The view that social wholes are self-serving, and that their value hovers above the values cherished by its individual components, is a holistic myth that serves only to entrench privileges or to perpetuate obsolete social organizations. To help avoid this holistic trap we hasten to propose

POSTULATE 1.8 (i) A social group is socially valuable only if it helps its members attain or retain their good health and meet their psychologically legitimate wants. (ii) The most valuable of two social systems of the same type (e.g. firms or governments) is the one which is the more socially valuable to the more inclusive social group — i.e. the one that serves best the greatest number of people.

This assumption has two immediate consequences:

COROLLARY 1.2 The most valuable of all the (actual or possible) social systems in any given society is the one that serves best all of the members of the society.

COROLLARY 1.3 The most valuable of all the human social systems is the world system, i.e. the one that encompasses the whole of humankind.

The world system was only born five centuries ago, when all of the major human groups started to coalesce into a single one by way of conquest, colonization, and trade. The world system has needs of its own which transcend the national and regional ones, such as protecting the atmosphere and the seas from industrial pollution, halting the quick depredation of non-renewable resources, and preventing further international conflicts. Such global needs give rise to global or supranational values, such as a clean biosphere, a rational management of the world's non-renewable resources, and world peace. In turn, the fulfilling of such values, i.e. the attainment of such goals, poses technical and political problems on a world scale, that can only be tackled in a global manner. That is, the world system needs, for its own preservation, a global

management in the interests of the greater number of individuals and their offspring. However, we must postpone the consideration of this tantalizing matter to Ch. 11.

Before drawing any further consequences from Postulate 1.8 we need another hypothesis:

POSTULATE 1.9 Only valuable items are worth the effort required to attain or retain them.

This proposition seems so self-evident as not to need explicit statement. Yet, actually we often engage in worthless actions, or neglect the important for the urgent, because we perform or receive the wrong evaluations. In any event, Postulates 1.8 and 1.9 jointly entail

THEOREM 1.1 A social system that fails to satisfy Postulate 1.8 is not worth keeping.

This is a reminder that social systems must be reviewed once in a while to ascertain whether they actually continue to serve (if they ever did serve) the (good or bad) purposes for which they were instituted. A case of obsolescence is that of a number of social programs originally launched in the US to correct some social injustices, but which in practice have failed to do so, in spite of which they are kept either because of bureaucratic inertia or political convenience. (See e.g. Gilbert, Light & Mosteller 1975, Mosteller 1981.) Actually the entire so-called welfare state — more properly called 'relief state' — is currently under scrutiny, not only because it hurts the wealthy but also because it has shown itself to fall short of its goal. In fact, while it relieves some misery it does not fully eradicate poverty, and it is incapable of satisfying two of the most basic human needs: those of having a useful and gainful occupation, and of feeling self-esteem. But the matter of basic human needs, hence values, deserves a new section.

2.4 *Summary*

According to axiological nihilism (e.g. physicalism and existentialism) there are no values except as fictions. On the other hand according to axiological idealism (e.g. Platonism and phenomenology) values are self-existent, hence absolute, ideas; as such they may but need not be "embodied" in concrete things. And according to theology-oriented axiologies, God is the source of all values.

In our own view there are values or, rather, items evaluated (positively or negatively) by animals, in particular humans. Animals value whatever they need or want. An animal may set store in an item either

because it is necessary for its survival, its psychological well-being, or its functioning in a social group.

In other words, values can be biological, psychological, or social. For instance, wholesome food is a biovalue, company a psychovalue, and peace a sociovalue. But of course these values are interrelated rather than mutually independent. Thus access to food may depend on social standing, and the conservation or alteration of a social structure depends on the biological and psychological welfare of the individuals composing the society.

3. NEEDS, WANTS, AND VALUES

3.1 *Basic Needs and Legitimate Wants*

So far we have dealt with biovalues and psychovalues in general. Now we shall focus on basic human needs and legitimate wants as value sources. Moreover in this section we shall restrict our interest to personal needs and wants. The reason for discussing personal human needs and wants is that, in our view, these are the sources of human values.

The basic human needs can be grouped into three categories: physical or visceral, mental, and social. Table 1.2 exhibits a few items in each of these three categories. The reader may find it necessary to add or remove some items, perhaps with the help of some of the very few serious studies conducted on this crucial problem. (See e.g. Malinowski 1944, International Labour Office 1976, Ghai *et al.* 1977, McHale & McHale 1977, Streeten & Burki 1978, Harris 1979.) But before looking at any such sources he should be warned that it is far easier to investigate what people want, or rather *say* they want — e.g. by circulating questionnaires about individual preferences — than to determine their objective basic needs, e.g. in the fields of nutrition, health care, or education. As a consequence our objective knowledge of subjective wants (psychovalues) is far better than that of our objective needs (biovalues and sociovalues).

We shall distinguish two levels or degrees of need, primary and secondary, and shall define the corresponding concepts in terms of that of deficit or deficiency, i.e. whatever is lacking to achieve optimal survivorship:

DEFINITION 1.12 Let x be a biological, psychological or social deficit of a human being b in circumstance c. We call x

TABLE 1.2. Some basic human needs

Rank	Physical or visceral (β)	Mental (ψ)	Social (σ)
1	Clean air & water	Being loved	Peace
2	Adequate food	Loving	Company
3	Shelter & Clothing	Feeling needed	Mutual help
4	Safety	Meeting legitimate wants	Work
5	Physical activity	Learning	Participation
6	Health care	Stimulation	Mobility
7	Leisure time	Recreation	Social security

(i) a *primary need* of b in c if and only if meeting x is necessary for b to stay alive under c in any society;

(ii) a *secondary need* of b under c if and only if meeting x is necessary for b to keep or regain health under c in b's particular society;

(iii) a *basic need* if and only if x is a primary or a secondary need.

Examples. An adult human being needs about 2,500 kilocalories and 30 g proteins per day, a minimum of 5 m^2 of housing space, and 6 years of schooling, as well as the company of freely chosen fellow human beings, to live normally in a modern society.

As for the concept of a legitimate want or aspiration, in contrast to that of a mere fancy or whim, we propose to elucidate it through

DEFINITION 1.13 Let x be a psychologically legitimate want or desire of a human being b in circumstance c (Definition 1.7). We stipulate that x is a *legitimate want* (or *desire* or *aspiration*) of b in circumstance c and society d if and only if x can be met in d (i) without hindering the satisfaction of any basic need of any other member of d, and (ii) without endangering the integrity of any valuable subsystem of d, much less that of d as a whole.

Put negatively: An aspiration that can only be fulfilled at the expense of other people's needs, or the integrity of a valuable social group, is illegitimate in that group — even though it may be legitimate in another, perhaps more prosperous, group. Obvious examples of legitimate aspirations are to live close to one's beloved, enjoying nature and culture, and improving one's lot; of illegitimate aspirations: idleness, wanton destruction of lives or goods, and domination for its own sake. Just as living in society puts constraints on individual behavior, so individual needs and legitimate wants constrain the kinds of desirable society.

Both wants and needs are objective in the sense that they are deficits the elimination of which alters the state of the organism in certain circumstances. Hence both can be ascertained by scientific means. But whereas the satisfaction of primary needs is a matter of life and death, and that of secondary needs a matter of health or sickness, the satisfaction of legitimate wants is one of happiness or unhappiness. For example, food is a primary need, medical care is a secondary need, and entertainment a want.

3.2 *Values*

We are finally ready to define the concept, or rather concepts, of human values. We shall do so in terms of a human being's needs and wants, which in turn may be taken to be definable and measurable in the natural and social sciences. In fact we propose

DEFINITION 1.14 Let x be a thing, a property of a thing, or a process in a thing (in particular a mental process in someone's brain). We attribute x

(i) a *primary value* for human beings in circumstance $c =_{df} x$ contributes to satisfying at least one primary need of any humans, in any society, when in circumstance c;

(ii) a *secondary value* for human beings in circumstance $c =_{df} x$ contributes to meeting at least one of the secondary needs of humans under c in their particular society;

(iii) a *tertiary value* for human beings in circumstance $c =_{df} x$ contributes to meeting at least one of the legitimate wants (or desires or aspirations) of humans in circumstance c;

(iv) a *quaternary value* for human beings in circumstance $c =_{df} x$ contributes to meeting a fancy, i.e. a desire that is not a legitimate want;

(v) a *basic value* $=_{df} x$ has either a primary or a secondary value.

If we do not care for such analysis, or do not need it in certain contexts, we may lump all four value ranks into one, and speak simply of *good* items for humans in certain circumstances; i.e. we may use

DEFINITION 1.15 For any object x, x is *good* for human beings in circumstance $c =_{df} x$ has a primary, secondary, tertiary, or quaternary value.

However, we must not lose sight of the fact that tertiary and quaternary values are not universal, whence something good for someone (for realizing a ternary or quaternary value of hers) may be bad for someone else (e.g. the person from whom the object in question was taken). And we cannot take a further step and introduce the predicate "good"

without qualifications, for nothing is good in itself, i.e. regardless of any evaluating subjects and in all circumstances. For example, there was nothing good or bad in the universe before the first animals emerged.

Note the following points. Firstly, values are not things, properties of things, or changes in things: instead, they are properties we, or other animals, attribute to the former. (Recall Sect. 1.1.) Therefore the publicity that calls low-priced commodities 'good values' is conceptually wrong: it should refer instead to 'valuable goods at low prices'.

Secondly, we can use Definition 1.14 to distinguish among primary, secondary, tertiary, and quaternary goods or value bearers, such as loaves or bread and yachts. In particular, we would define a *basic good* as one capable of satisfying a basic need, or realizing some primary or secondary value. This concept differs from Rawls's now classical one by the same name (Rawls 1971 p. 62). Indeed according to Rawls a primary good is one that "every rational man is presumed to want". We do not adopt this definition because (*a*) it is not accompanied by that of a "rational man" (by which Rawls does not mean the egoist who only cares about maximizing his own expected utilities), and (*b*) it presupposes an economy of plenty, for in one of subsistence or scarcity a rational person, and a fortiori a rational and moral one, will not want what he does not need, for he will not defy the envy and ire of his neighbors. In our view any goods which are not basic are secondary, even if they are capable of satisfying legitimate aspirations, because they may or must be dispensed with in the event of scarcity.

Thirdly, Definition 1.14 would be attacked by the intuitionists (e.g. Moore 1903) as a "naturalistic fallacy". But this only goes to show that axiological intuitionists overlook the factual root of values and morals — whence they can be of no help in ordinary life, much less in public life. Basing values on needs and wants, instead of removing them from the world, has two advantages. Firstly, it builds a bridge between value theory and ontology. Secondly, it entails the possibility of basing value judgments on scientific findings about needs and wants, hence of ultimately turning axiology and ethics into scientific disciplines. (See e.g. Bunge 1960, 1961, 1962a.)

However, there is one *prima facie* counterexample to the identification of value with need or want satisfaction, namely no less than life itself. Indeed, one may well ask what need or want does life satisfy. Put negatively: Why should we cherish life, let alone regard it as inviolable or even sacred, if living satisfies no obvious need but, on the contrary, is the source of all needs and wants? We submit that this puzzle

originates in an individualistic perspective, i.e. one in which the individual is seen as a member of a loose aggregate rather than a component of a tightly knit system. The puzzle evaporates in a systemic perspective, where every human being is regarded as (actually or potentially) playing some role in a society, and thus being able to satisfy some of the needs and wants of other people. For example, a baby, even if severely handicapped, satisfies his mother's need for giving care and being loved; a worker satisfies a need of the management, and the latter meets some of the former's needs, and both together are supposed to meet needs or wants of some consumers; a teacher meets the learning needs of her students, who in turn satisfy the former's need and wish to teach — and so on. In short, although life in the abstract does not derive from any need, we value every living person for contributing (actually or potentially) to other human lives. Besides, every one of us came to life as a result of physical, emotional or social needs or wants of our parents. And we normally enjoy satisfying our own needs and wants as well as some of those of others — and this is what life is all about.

3.3 *Value Categories and Orders*

The basic human needs and the corresponding values do not come in amorphous collections but are partially ordered within every category. For example, clean air and water precede nutrition, which in turn precedes shelter and clothing; being loved dominates loving, which in turn dominates feeling needed; and peace is more important than company, which in turn is more important than mobility. (For alternative hierarchies see Rogers 1964 and Maslow 1968.)

In short, $\mathscr{C}_i = \langle V_i, \succeq_i \rangle$ for $i = \beta, \psi, \sigma$, where $\mathscr{C}_i$ is a value category and V_i the corresponding set of particular values. The main point of grouping values into categories is to avoid comparing values out of context. For example, it would be mistaken to state that truth is (absolutely) more (or less) important than friendship or beauty, or that reasearch is more (or less) important than physical exercise. Value judgments make sense only in context, and when in context some of them are objectively true. For example, whereas "Truth is more important than beauty" is true with reference to science, it is false relative to art.

It would be mistaken to try and order the value categories $\mathscr{C}_\beta$, $\mathscr{C}_\psi$ and $\mathscr{C}_\sigma$ themselves, for most visceral and mental needs cannot be met except in society, i.e. in the company and with the help of others. Primates and other higher animals are biopsychosocial things, whence

they have biovalues, psychovalues and sociovalues. The importance of the latter cannot be exaggerated. No human individual is an isolated and self-reliant atom: every one of us, even the most miserable outcast and the humblest hermit, belongs, however ephemerally, to at least one social group. And meeting a basic need or a legitimate want in any of the three categories calls for satisfying some basic needs in the other two. For example, there is no learning on an empty stomach and in a social vacuum. Because of such interdependencies among the three basic value categories, these do not form a hierarchy but a triangle: See Figure 1.2(*b*).

We compress the preceding into

POSTULATE 1.10 (i) There are three categories of basic human needs and legitimate wants: physical or visceral ($\mathscr{C}_\beta$), mental ($\mathscr{C}_\psi$), and social ($\mathscr{C}_\sigma$). (ii) For every such need or want there is a corresponding value, viz., that of meeting that need or want. (iii) Every one of the three value categories is ordered by a relation $\succeq$ of dominance, i.e. it constitutes a partially ordered set. (iv) The three value categories are interdependent, forming a triangular loop: i.e., every value in one of the categories can only be realized if some values in the other two categories are realized as well.

The following are immediate consequences of the preceding axiom:

COROLLARY 1.4 It is impossible to order all of the human values in a single linear order or hierarchy (i.e., there is no single "table of values").

COROLLARY 1.5 No value is absolutely preferable to any other.

It may be retorted that human survival is the basic or absolute value for human beings. Indeed it is, but not in the sense of merely visceral survival, without mental life, for such "vegetative" life cannot be

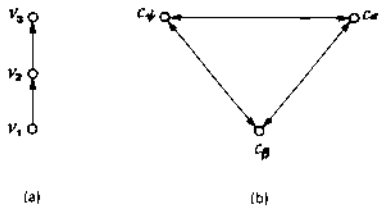


Fig. 1.2. (*a*) Within every value category (visceral, mental, or social) the values form a linear sequence or hierarchy, in which each either dominates or is dominated by others. (*b*) The three categories constitute a triangular loop. Every node represents a collection of values of a kind: visceral ($\mathscr{C}_\beta$), mental ($\mathscr{C}_\psi$), or social ($\mathscr{C}_\sigma$). Every double arrow represents the mutual dependence of such value groups.

enjoyed by anyone; nor in the sense of survival out of society, for nobody can survive without the help of others, and nobody can enjoy life without the company of peers. The maximal value is not personal survival but *full (visceral and mental) survival in society* — or, rather, optimal well-being (physical, mental and social) in a society worth living in. However, the explicit postulation of this maxim will have to await the elucidation of the concept of well-being, to be tackled in the next chapter.

3.4 *Summary*

Values emerge from animal needs or wants. Humans and other higher gregarious animals have requirements of three types: physical or visceral, mental, and social. These are interrelated. For example, a person cannot lead a normal social life unless she is well nourished and mentally balanced. In other words, needs and wants come in clusters.

We group needs and wants into four clusters: primary needs (to be met for sheer survival), secondary needs (to be satisfied in order to enjoy good health), legitimate desires (to be met for the sake of reasonable happiness), and fancies. Every one of these clusters contains biological, psychological, and social components.

Every cluster of needs or wants is the root of a group of values: primary, secondary, tertiary, and quaternary. Only the first three are genuine or legitimate. See Figure 1.3. This categorization will have momentous consequences for our views on rights and duties, i.e. our ethical doctrine.

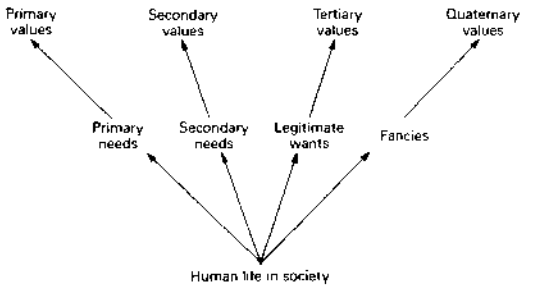


Fig. 1.3. Living in society involves meeting basic needs and certain wants, which in turn makes us value whatever is capable of satisfying these needs or wants. The realization of primary values ensures sheer survival, that of primary and secondary needs guarantees well-being, that of primary, secondary and tertiary, reasonable happiness. Mere fancies or whims are the root of artificial values.

CHAPTER 2

WELFARE

All animals pursue their own well-being, either automatically or deliberately. Those who do not perish. Human beings, particularly since the rise of civilization, seem to be the exception. They are the only animals to have invented devices designed to prevent some conspecifics from attaining well-being or even from staying alive: slavery and serfdom, jails and gallows, war and conquest, myth and propaganda, and much more. Hence the importance of any moral and legal codes enshrining the right to the pursuit of well-being.

The principle that all humans, or at least all free humans, have the right to pursue their own well-being, is ancient. Its explicit formulation goes back to at least Aristotle's *Nichomachean Ethics*, rightly called a *eudaimonistic* ethics for holding that the goal of man is *eudaimonia* or well-being. This idea was alien to Buddhism and it was opposed by the early Christians and later on by the protestants (particularly Luther and Calvin). In modern times it was derided by Kant and, later on, by fascists and nazis. To all of them, though for different reasons, human life is suffering and struggling for transcendental goals, such as nirvana, the after-life, the greater glory of God, or that of the omnipotent State.

The American Declaration of Independence (1776), drafted by Jefferson, stated that all (white male) men have "inalienable rights", among them "life, liberty, and the pursuit of happiness". Although this document tacitly excluded slaves from such rights and did not give women any political rights, it was a humanist manifesto: it spoke of life, not after-life; of liberty, not submission; and of happiness, not the cross. Its descendant, the more influential *Déclaration des droits de l'homme et du citoyen* (1789), enshrined similar basic rights although it made no reference to happiness. The liberals and socialists continued and strengthened this tradition, working for social reforms, or even revolutions, aiming at securing the well-being or even happiness of everyone.

Since so much has been written and legislated about well-being and happiness over the past two centuries, one would think that these concepts are quite clear. Not so: the notions of well-being and happiness, like those of fairness and justice, freedom and democracy, are still

inexact. One of the reasons for this may be that they have remained for the most part in the foggy regions of ordinary knowledge and ideology. One of our tasks will be to try and elucidate those notions, starting with well-being and happiness.

1. WELFARE AND HAPPINESS

1.1 *From Bentham to Decision Theory*

The first modern treatise on happiness was Bentham's (1789). He equated happiness with "enjoyment of pleasures, security from pain", and listed fourteen "simple pleasures" (including those of benevolence and imagination) and twelve "simple pains", among them those of privation and enmity (Ch. V). Moreover Bentham popularized the Utilitarian Principle, of the greater happiness of the greatest number — actually first proposed by Helvétius and adopted by Priestley. Later utilitarians, such as Mill (1863), Moore (1903) and Sidgwick (1907), spoke of good or utility rather than happiness. But in every case the key notion remained vague and also stray, i.e. outside any theory (hypothetico-deductive system). Moreover Moore insisted that "good" is undefinable and can only be intuited. Actually we are dealing here with a whole *family* of vague concepts — those of happiness, pleasure, good, and utility — with a common core.

The first serious attempt to elucidate the notion of utility (or subjective value) was that of the decision theorists, who were motivated by psychology and social science rather than by ethics. (See von Neumann & Morgenstern 1947, Luce & Raiffa 1957.) However, it is now clear that theirs was a glorious failure. Glorious because they attempted a grand enterprise — that of building a single and simple foundation for psychology and all of the social sciences — and a failure for a number of reasons.

Some of the reasons for the failure of decision theory and its offspring, game theory, were mentioned in Vol. 7, Ch. 5, Sect. 5.2. These theories are not scientific because the probabilities and utilities occurring in them are subjective, i.e. eyeballed rather than assigned by either calculation or measurement. Consequently, by conveniently assigning numerical values to probabilities and utilities, one may prove anything — e.g. that selfishness pays off, or that cooperation does. Further reasons for the failure of decision theory is that the utilities of

different persons can be neither compared nor aggregated; in particular, it makes no sense to speak of the aggregate utility of something for an entire social group. (See e.g. Sen 1979.)

However, the root troubles with decision theory, game theory, and their ethical companion, namely utilitarianism, are even deeper: to wit, vagueness, irrefutability, and unconcern with human needs and wants, hence with genuine values. Let us take a quick look at these flaws. The first defect is obvious: Decision theory does not tell us exactly *what* utility is. Sometimes 'utility' is read as value, at other times as welfare, and more often as profit or payoff — particularly when proposing payoff matrices pulled out of a hat. But these are quite distinct concepts. For example, murder and exploitation may be profitable but they do not improve the welfare of their victims; on the other hand a sacrifice may have a disutility to its doer but not to its beneficiary — and, since such positive and negative utilities are neither comparable nor additive, how are we to decide whether the total utility is greater than zero, hence the sacrifice worth performing?

The methodological trouble with the Principle of Utility is that it is hardly refutable, for it covers every instance of deliberate human behavior, including any attempt to refute utilitarianism. Indeed, the principle does not state any relations between particular actions, or the need for them, and the associated outcomes and their utilities. Consequently if a person performs now a certain action, next another action with the opposite outcome, and finally no action at all, utilitarians ask us to believe that in all three cases the person has acted so as to maximize her expected utility. (Example: Person A maximizes her expected utility by overachieving, listening to classical music, and loving; person B, by underachieving, listening to hard rock, and hating; person C by enjoying life, and person D by retiring to a convent or even committing suicide.) In sum, according to utilitarianism people maximize their utilities *whatever they do* deliberately. The Principle functions very much like a tautology: it holds come what may. If it be rejoined that the theory does not attempt to describe actual behavior but to prescribe rational action, then it must be said that (a) preferences (psychovalues) are not rational pointers, and (b) individual utility maximization is usually sheer selfishness, hence morally objectionable. (More on the latter in Ch. 7.)

The third flaw of decision theory and utilitarianism listed above is their unconcern with basic needs and legitimate wants. All they are

interested in is whether the outcomes of the actions in question have consequences that their agents value positively for some reason or none. In those theories there is no room for the very sources of genuine value (Definition 1.14). Therefore we cannot use them to build a correct value theory. However, we shall see in Ch. 7, Sect. 3.3 that utilitarianism does have some merit in ethics and in action theory after all. But now let us go back to the concept of well-being.

1.2 *Definitions*

We propose the following

DEFINITION 2.1 An animal (in particular a human being) is in a state of *well-being* (or *welfare*) if and only if it has met all of its basic needs (Definition 1.12).

As emphasized in Ch. 1, humans are biopsychosocial entities. Hence they have needs, and therefore values, of three different though mutually related categories: Recall Figure 1.2. Consequently there are three distinct though mutually related sources of well-being — physical, mental, and social — and just as many as sources of discomfort. Well-being is a vector, not a scalar. Therefore it is mistaken to try to reduce well-being to the meeting of a single need, e.g. food, sex, freedom, or money. All unifactorial (or monocausal) views of well-being are then false, even though some of them contain a grain of truth.

Nor is well-being a state to be attained or retained passively: spoon-feeding is only for babies and the infirm. All healthy animals are active, hence they do not feel well unless they can move about and, in the case of humans, do something useful. Well-being then is a matter of doing as well as being, and of giving as well as taking. Although Aristotle made this point more than twenty-three centuries ago, and although psychologists and anthropologists have amply confirmed it, we must emphasize it in view of the assumption of conservative social scientists (or rather ideologists) and moral philosophers, that with few exceptions we are basically lazy and selfish, and thus ready to live on public welfare (as "free-loaders") rather than earning our upkeep. What is true is that undernourished, chronically unemployed and marginal people end up by becoming disheartened and lack the energy and the will to fight a losing battle.

In principle the concept of well-being can be further honed with the help of the state space concept (for which see e.g. Vol. 4, Ch. 1, Sect. 2.2). Take the totality of N known independent variables that make up

the visceral, mental and social state of a human being. Every one of these variables may be conceptualized as an axis in an N-dimensional abstract space. The various laws and constraints that interrelate or restrict these variables define an N-dimensional box L (for "live"). Every point within L represents a state s of the animal. Now, for an animal to be in a state of (visceral, mental and social) well-being, every one of the N variables must range over a comparatively narrow interval. These N intervals define a much smaller box W included in L: this is the *well-being box*. In other words, a state of well-being is representable as an arrow s with origin in the origin of the N-dimensional coordinate system, and tip lying inside the W box: see Figure 2.1. Some of the components (projections) of the well-being arrow will be large whereas others will be small, depending on the scale, the biospecies, and even the individual. Thus a person may be healthy but joyless, and another sick but happy.

Besides being exactifiable, well-being is measurable, at least in principle. In the case of humans there is a whole battery of well-being indicators, from calorie and protein intake to fraction of leisure time devoted to voluntary work. The most telling of all such well-being indicators is perhaps longevity, which ranges between 37 (Afghanistan) and 77 (Sweden).

The momentary state of well-being, or rather discomfort, can also be measured in the laboratory. An animal subjected to extreme crowding or harassment is under a stress that, if prolonged, can cause remarkable alterations in the size and shape of certain organs (e.g. the thymus), as

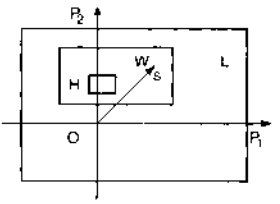


Fig. 2.1. State space of an organism of a given species in a given environment, oversimplified to two axes, every one of which represents a property of the organism in its environment. The large box L contains all the points representing the possible states of the living organism, whether healthy or sick, happy or unhappy. The smaller box W represents possible states of welfare. The tiny box H represents the possible states of happiness.

well as an overproduction of corticosterone (cortisol in the case of humans). For this reason the concentration of corticosterone (or cortisol) in blood is used as an objective indicator of stress, hence of discomfort, in the higher vertebrates. Unwell-being, or discomfort, has become a subject of scientific research in social science, psychology, psychoneuroendocrinology, and psychosomatic medicine, as well as in applied ethology with reference to domestic animals. (See e.g. Zayan 1984 and Zayan Ed. 1985.) Since farm animals are not in the habit of filling out psychosociological questionnaires, but can be subjected to objective tests, we probably know more about their welfare conditions than about our own.

The concept of happiness is much narrower than that of well-being. In a state of well-being all of the basic needs (or primary biological, psychological and social drives) have been satisfied. Yet an animal may still be dissatisfied because some of its wants have not been met or, worse, it has no expectations that they will be met. Think of zoo animals or of prison inmates. Happiness is a particularly satisfactory state of well-being: it is attained when the animal is satisfied with having achieved certain goals or with the prospects for attaining them. More precisely, we stipulate

DEFINITION 2.2 An animal feels *completely happy* if and only if it believes to have the ability and opportunity of meeting all of its needs and wants.

Like well-being, happiness is a state (or rather a set of states) that an animal can be in: See Figure 2.1, box *H*. This fact has important consequences. One of them is that there can be no happy *societies*, but only societies some members of which can be happy to some extent. A second consequence of the fact that well-being and happiness are states, not things, is that they cannot be *aggregated*. I.e., it makes no sense to try to add up the degrees of well-being, or of happiness, of the various members of a social group, in order to obtain the total amount of well-being or of happiness in the group. (The tacit assumption of the classical utilitarians, that such an aggregation is possible, is just as mistaken as the idea that population densities or temperatures are additive.) A third consequence of the fact that well-being, and in particular happiness, are states of individuals, is that they cannot be *distributed* anymore than an intention or a smile can. Only some well-being and happiness *means*, such as food and caregiving, can be distributed among people.

Note that, unlike well-being, which is an objective biopsychosocial state, happiness is a transient feeling — a subjective experience. Being subjective, the conditions for attaining it vary from person to person. Thus a person may have everything she really needs and wants, yet she may feel unhappy — e.g. because she fears to lose her possessions — whereas another individual, blessed by a sanguine temperament, may have moments of happiness even under duress.

Happiness is, in short, not only a matter of objective circumstances, in particular material means, but also of mental set or disposition. (But of course the latter is a child of circumstance as well as of genetic make-up.) Hence, while a physician may find nothing wrong with a patient, a psychologist may discover unhappiness, derived, for example, from an unjustified phobia. Accordingly the (scientific) psychologist may teach her patient to remove some of the obstacles to her (temporary) happiness. Shorter: We can learn to become happy — e.g. by counting our blessings every time we suffer a mishap.

As a matter of fact some philosophers too have had something to say about happiness. For example, the ancient Stoics recommended reducing one's needs and wants instead of multiplying them as we do in consumer societies. (In view of the increasing scarcity of many of the raw materials employed in manufacturing industrial goods we ought to heed this advice. More on this in Ch. 11.) But other philosophers have blundered with regard to happiness, some for holding that it is unattainable except in the after-life, and others for equating it with goodness. The former view is untenable, for happiness, like any other feeling, cannot be known without experiencing it; and if we cannot experience it while alive, how could we experience it when dead? As for the identification of happiness with goodness, it is mistaken because goodness can be predicated of objects of many kinds, whereas happiness can only be predicated of the mental states of some animals. In particular, we may talk about good societies but not — except elliptically — about happy ones, for societies are mindless.

1.3 *Postulates*

It is a well known fact of life that there are mutually incompatible (or conflictive) desiderata. Moreover, for every desideratum there is a counterdesideratum, though not always one that it is rational to hold. For example, the single-minded pursuit of happiness is bound to cause pain to self and others; obsession with security endangers peace;

ownership causes worries; the advancement of anyone is likely to hurt others — and so on. This suggests

POSTULATE 2.1 The full realization of any given value is incompatible with that of some other values.

The conjunction of this assumption with Definition 2.2 entails

THEOREM 2.1 Nobody can be completely happy.

This result refutes the hedonistic thesis that the goal of man can be, is, or ought to be the attainment of full happiness. Knowing that this goal is unattainable, the rational being will settle for something less, namely reasonable happiness, as defined by

DEFINITION 2.3 An individual is *reasonably happy* if and only if she is

(i) in a state of well-being, and

(ii) free to pursue her legitimate wants.

Even reasonable happiness is largely a subjective — mainly emotional — state and, as such, elusive and short-lasting. Though attainable, reasonable happiness is actually attained by less than one person out of ten in the whole world. (Remember that most people live in Third World countries, where poverty is rampant, one out of two people do not have safe water to drink, and one out of five do not get enough food for an active working or playing life; see e.g. Sivard 1987.) When living at a subsistence level or below there are few opportunities for happiness. Most of the people in the present world do not aim for maximal happiness: They feel satisfied if they stay alive and give their dependents a chance to survive. Rather than dreaming a calculus of felicity they dream of stumbling on a survival martingale.

Yet in all societies we see plenty of examples of absurd evaluations, some leading to what Veblen (1899) called 'conspicuous consumption' (engaged in for the sake of appearances), others to the attainment of transient happiness to the detriment of health. Obvious examples are the preference for drugs, such as alcohol, over food; of cars over education; and of entertainment over health care. This all too common irrational evaluation pattern calls for the adoption of

NORM 2.1 Long-term well-being and, a fortiori, reasonable happiness, calls for the following ranking: Meeting primary needs (survival) ought to precede meeting secondary needs (health), which in turn should precede meeting legitimate wants, which ought to dominate the satisfaction of fancies.

Using Definition 1.14, this obvious yet often forgotten rule translates

into: Primary values precede secondary values, which in turn precede tertiary values, which dominate quaternary values.

Finally, note that the preceding principle is a norm or rule not a postulate or basic assumption. The reason is that people do not always observe it.

1.4 *Social Welfare*

The pursuit of well-being, and even more so that of reasonable happiness, cannot be a "solo" endeavor: it can only be conducted in society, and moreover in a society with special characteristics. There are several obvious reasons for this. Firstly because congenial company is no less than a basic need: normal people do not feel well unless they sense that they "belong" in at least one social group, usually more than one. Only extremely abnormal people, such as psychopaths and autistic individuals, imagine themselves to be isolated atoms. But of course not even such psychological deviants are self-reliant: they depend on others for survival. Normal people seek the help, respect and affection of others, and attempt to reciprocate them: these are important components of the well-being vector. (This is why ostracism and solitary confinement are among the most cruel of all punishments.)

A second reason for linking the pursuit of well-being to society is that everyone, even the most self-reliant individualist among us, needs the help of others to meet her basic needs and legitimate wants. (Robinson Crusoe would not have survived his shipwreck without the skills he had learned from others, as well as the tools he salvaged from his ship.) A third reason that personal well-being and reasonable happiness depend very much upon social organization is that mutual help, though necessary, is not sufficient. We also need social organizations, both public and private, facilitating mutual help or cooperation, dampening competition, and supplying such public services as security, sanitation, education, and transport. Not even anarchists dare deny this.

Now, not all societies can give everyone the chance to pursue her well-being, much less her (reasonable) happiness. Only the right combination of economic and cultural riches with social (distributive) justice can do that trick. The elucidation of this idea calls for three definitions, starting with

DEFINITION 2.4 A society is

(i) *miserable* (M) if and only if it lacks the (economic, cultural and

political) resources required to meet the basic needs of all of its members — whence it cannot secure the well-being of them all;

(ii) *poor* (P) if and only if it has the (economic, cultural and political) resources required to meet the basic needs but not the legitimate wants of all of its members — whence it can secure the well-being but not the reasonable happiness of all of them;

(iii) *properous, rich, or affluent* (R) if and only if it has the (economic, cultural and political) resources required to meet the legitimate wants as well as the basic needs of all of its members — whence it can secure not just the well-being but also the reasonable happiness of them all.

In other words, in the miserable societies — all those in the Fourth World and many in the Third — few if any can realize the primary and secondary human values. In the poor (or subsistence) societies — most of those in the Third World — there is just enough for nearly everyone to realize the primary and secondary human values. In the rich societies — most of those in the advanced industrialized nations — everyone can realize the primary, secondary and tertiary human values. As for the quaternary values, which satisfy fancies or whims, no society could possibly realize them for all of its members, but nearly every contemporary society contains a handful of privileged people who do realize a good many of them — at the expense of the greatest number.

The above definition contains the modal expression 'can' (or its denial): it is about possibility, not actuality. This is because the resources in a poor or even a rich society may be distributed so unevenly that in fact only a privileged minority can expect to be in a state of well-being. (Think e.g. of the dozen families and the couple of transnational companies that own most of the good land in El Salvador.) Therefore we also need

DEFINITION 2.5 A society has a *just* social structure (J) if every member of the society can attain well-being, or even reasonably happiness, without others suffering from it. Otherwise the social structure is *unjust* ($\bar{J}$). In a just society the well-being of everyone depends on that of the others. (Such a society would seem not to satisfy Pareto "optimality" — the see-saw condition where no one can be better off without making someone worse off. However, Pareto "optimality", a sacred cow of mainstream economics and political science, is satisfied by *any* partition of the social cake, in particular by an extremely inequitable one: See Moessinger 1989. Hence there is no reason to

regard it as a desideratum.) In a just society the improvement of anyone's lot parallels that of all others by virtue of cooperative mechanisms. We shall return to this matter in detail in Ch. 11.

The previous definitions have introduced three predicates (M, P, R) concerning social (economic, cultural and political) resources, and one predicate (J) concerning the distribution of such resources. Obviously, there in principle six possible combinations of these predicates:

MJ = Miserable & Just, $M\bar{J}$ = Miserable & Unjust
PJ = Poor & Just, $P\bar{J}$ = Poor & Unjust
RJ = Rich & Just, $R\bar{J}$ = Rich and Unjust

In MJ societies everybody is under the subsistence level. In $M\bar{J}$ societies everybody is miserable except for a handful of privileged families. In PJ societies everybody attains a state of well-being but nobody can satisfy any legitimate aspirations. In $P\bar{J}$ societies some are reasonably happy at the expense of he discomfort or suffering of the greatest number. Ditto in the $R\bar{J}$ societies, except that in these the fraction of people who can attain reasonable happiness (namely those forming the middle class) is far larger than in the poor societies. Only in RJ societies can everyone become reasonably happy.

The states PJ and RJ are so desirable, and so within reach of most societies, that they deserve names of their own:

DEFINITION 2.6 A society is said to be

(i) a *welfare society* if and only if it is poor but just, so that everyone is assured a state of well-being;

(ii) a *good society* if and only if it is just as well as rich, so that everyone has the opportunity of becoming reasonably happy.

Note in the first place that prosperity together with social (distributive) justice guarantees well-being for all but not happiness for all, since happiness is an emotional state that a few people are constitutionally incapable of enjoying.

Secondly, we have defined the concept of a welfare *society* not that of welfare *state* or government. Indeed, in a welfare society, and a fortiori in a good one, there are no needy people except as a result of natural catastrophes, so that there is no need for the state to take care of them on a regular basis. On the other hand the so-called welfare state attempts to correct some of the most glaring social inequalities by ministering to the basic needs of the destitute, though not to their legitimate wants — whence it is best called the *relief state*, or even the

stop-gag or makeshift state. In a welfare society there are neither rich nor poor, whereas a relief state — characteristic of the most advanced societies of the $P\bar{J}$ and $R\bar{J}$ types — is a sort of Robin Hood that redistributes a small fraction of the excess wealth of a minority. We shall take a closer look at this matter in Ch. 11.

Finally we stick our neck out and make a value judgment:

POSTULATE 2.2 The six possible types of society are ordered as follows:

$$RJ > PJ > R\bar{J} > P\bar{J} > MJ > M\bar{J}$$

This is neither a strictly socioeconomic nor a purely moral judgment: it is mixed. According to it, neither prosperity nor social justice suffices by itself to build a welfare society, much less a good one: both factors are necessary. (Geometrical analog: the base and height of a rectangle.) Still, between two unjust societies we should prefer the richer one because it gives more people the chance of attaining well-being or even reasonable happiness.

Of course, ours is not the only possible evaluation of society types. A mainstream economist would only pay attention to the first member of every pair and disregard all matters of justice; he would propose the ranking: $R > P > M$. On the other hand a moral philosopher or political scientist might focus exclusively on the second member and state simply: $J > \bar{J}$. The former would then lump together just and unjust societies, and might argue that distributive justice is pointless where there is precious little to distribute. Moreover he might argue that, wherever there are surplusses, social injustice may motivate people to push for social changes aimed at a more just distribution. On the other hand the moral philosopher and the political scientist would lump together miserable, poor and rich societies, and might argue that prosperity is immoral unless shared by all. Further, they might argue that people in a just society, however poor, may be motivated to create the resources required to meet the basic human needs and legitimate wants. Since each of the two rival views has a grain of truth, we had better combine them. This is what we have done by proposing Postulate 2.2.

1.5 *Summary*

Animals are said to be in a state of well-being only if they have satisfied all of their primary and secondary needs. And humans may attain —

within bounds and over certain periods — reasonable happiness if, in addition to enjoying well-being, they can work to meet their legitimate wants. The latter are the desires that can be satisfied without seriously harming anyone else. A society where everyone enjoys well-being deserves being called a 'welfare society' — not to be mistaken for a relief society. And a society where everyone has a chance to attain reasonable happiness through his own effort and with the help of others may be said to be a good society.

Now, humans are not isolated atoms but components of social systems. Hence the actualization of values depends not only on personal ability and effort but also on the social structure, i.e. on the relations that hold people together. But most of the societies in existence do not afford most of their members the opportunity of pursuing their reasonable happiness. Just proclaiming the right to pursue it is not enough: the means for pursuing reasonable happiness must be available. To put it in terms of values: The value systems prevailing in most contemporary societies are not geared to giving all of their members the chance of meeting their basic needs, much less their legitimate wants. The much-needed social reforms will involve substantial changes in the prevailing value systems. But this is the subject of the next section.

2. VALUE CONFLICT AND CHANGE

2.1 *Value Conflict*

All humans, and possibly all animals, face value conflicts. These can be internal, interpersonal, or intergroup. An individual faces an *internal* value conflict when she is torn between mutually incompatible values, such as engaging in a pleasurable occupation and discharging a painful duty. Two individuals enter into an *interpersonal* value conflict either when they hold mutually incompatible values or when they hold the same values but the means available to realize these are scarce. And two social groups may enter into an *intergroup* value conflict when their respective value systems are at odds with one another or when they share the same values but compete for the same resources to realize them.

Value conflicts are so pervasive that is is difficult to imagine individuals and societies totally free from them. So, we may as well suggest

POSTULATE 2.3 All human beings and all social groups face

value conflicts, some internal and others external (interpersonal or intergroup), arising either from holding mutually incompatible values or from a scarcity of means to realize the same values.

What can be done about value conflicts? Either nothing at all, fanning them, letting one of the rival values override its dual, or adopting a compromise. The course to be chosen depends on the nature of the conflict as well as on the agents's goals and means. Small conflicts must be viewed with tolerance and allowed to subsist. But those which are matters of life or death cannot be skirted. Yet even such serious value conflicts usually can be resolved, at least temporarily, by bargaining towards a compromise. For instance, every firm faces a conflict between profit and service; if its managers wish to stay in business they will not resolve such conflicts by maximizing either profit or service at the expense of the other, but will opt for a compromise involving submaximal profit and service.

We make bold and generalize:

POSTULATE 2.4 (i) Every value conflict can be resolved through some compromise whereby neither one of the values in question is either fully realized or fully sacrificed. (ii) Compromise is preferable to demise.

This axiom entails that nothing, not even safety and security, should be pursued to its maximum or minimum. For, if it were, then either the corresponding counterdesideratum or the people involved in the conflict would be sacrificed. For this reason, whereas in physics extremality principles (such as Fermat's and Hamilton's) hold sway, in human affairs optimal goals and courses of action lie usually between minima and maxima: satisfaction is the ticket, not maximization or minimization. (See March & Simon 1958, Beer 1966, Bunge 1982a, Afriat 1987.)

Most value conflicts are resolved through compromise, but no compromise is everlasting. A compromise may become obsolete either because of the defection of one of the parties, or because the value conflict that motivated it has ceased to exist or has been postponed by a more important one. For example, the ideological conflict between the two superpowers is increasingly seen as having been superseded by the survival-extinction dilemma. The old slogan "Better dead than red (or black)" is being replaced with the more reasonable "Better alive than dead". Only living people can argue and fight over economic and political issues. As we come nearer to the brink, some of us realize that the basic (primary and secondary) values take precedence over all

others. A radical change in values is occurring worldwide under our noses — albeit, far too slowly.

Value changes and social evolution go hand in hand. As people adopt new lifestyles, some values disappear while others decay slowly and still others are actively fought against. But value changes are justified only if the old values are no longer rooted in basic needs or legitimate aspirations. For example, the young people who revolted against the "establishment" in the 1960's and 1970's were right in attacking international aggression and environmental degradation, but they were wrong in attacking science. Any global attack on a value system, without pausing to weigh every one of its components, results at best in a waste of energy, at worse in a backlash, and this for the simple reason that the value system of any viable society contains some values worth keeping — otherwise the society would not be viable. Besides, a rebellion against a value system is ineffective unless accompanied by the proposal of a new and superior value system. The reason is that man cannot live in a value vacuum any more that he can live in a social vacuum. In turn, the reason for such *horror vacui* is that values point to goals, and goals guide deliberate action. A person without a coherent value system is therefore like a leaf in a storm.

The search for alternative values starts with a rational criticism of the prevailing ones. We must begin by ascertaining whether the received values stem from basic needs or legitimate aspirations in our own society. (Recall Ch. 1, Sect. 2.4.) In particular, we must find out whether any of the currently held values originates from an illegitimate reversal of a means-end relation. Clear cases of such reversals are gluttony (living to eat instead of eating to live), professional sports (living for sports instead of the reverse), and the worst offenders: living only for pleasure, possessions, profit, or power, instead of seeking (harmless) pleasure, possessions, profit and power to secure survival. We submit that the unbridled pursuit of these four P's — pleasure, possessions, profit and power — with little or no consideration for other values, has driven mankind to the brink of extinction. More on this later on.

2.2 *Ideals*

People with only short term objectives are bound to go adrift. Only individuals with ideals can plan and build their own lives. But they will not succeed if their ideals are quixotic or if, being realistic, they do not join others with similar ideals. The yahoos who laugh at ideals, in

particular at moral and social utopias, are condemned to live the lives other people have planned for them. We should not deride ideals but only unattainable ones: and we should oppose only bad ideals, such as those of living only for pleasure, possessions, profit, or power.

Ideals can be personal or social: they may concern individuals or social groups. In either case an ideal is a conceptual model or blueprint for a future state of a system, and moreover a state that someone desires for some moral or social reason. In the case of human individuals or collectivities, as well as of systems under human control — such as farms, factories, and schools — an ideal is a state that we seek the system to attain for someone's benefit. Such a goal-state is rarely attained in one shot: if attained at all, it is reached through a process composed of intermediate means-ends pairs, and involving a number of corrections called for by the realization of defects in the original plan or by unforeseen circumstances. The more complex the system, and the more ambitious the goal, the more numerous and tougher problems it poses, and so the vaster and deeper knowledge is required to steer the system to the goal-state with the least waste. (See e.g. Ackoff and Emery 1972, and Vol. 7, Ch. 5, Sect. 4.)

However knowledge, though necessary, is insufficient to attain any social ideals: the active participation of all concerned is required as well. Such participation will be forced if the ideal is not shared by the majority, and voluntary if it is shared. Now, a social reform is unlikely to be lasting unless it is beneficial to the greatest number and well designed. In other words, the key to successful social reform is a combination of sociotechnology with popular participation. Revolutionary enthusiasm without rational planning can only lead to bloodshed and disappointment; and expertly designed blueprints that fail to ignite popular involvement are bound to remain on the drawing board. And no popular adherence can be expected unless the project in question aims at realizing widely shared desiderata, even if these are base, such as those of revenge and conquest.

Ideals are attainable or not; if the former, they may or may not be attained, depending on our knowledge and the means at our disposal. Ideals such as immortality, omniscience, universal and everlasting plenty or idleness, and complete happiness, are unattainable because they are incompatible with certain natural or social laws or constraints. What can be done is to stretch the human life span, expand and deepen human knowledge, or — perish the thought — increase our power over

other people. We can also develop some resources and introduce manual labor-saving devices, and multiply the opportunities for bounded and ephemeral happiness.

To ascertain whether an ideal is attainable we must start by building a conceptual model involving the laws and constraints of the system in question. If such a model suggests that the goal is within reach, we may design a plan capable of guiding the actions steering the system to the predetermined goal. In the case of plans designed to implement social ideals, i.e. goals to be reached by entire social systems, the former will involve not only laws and constraints, but also certain axiological or ideological tenets, such as those compressed in the catchwords "human rights" and "equal opportunity". Success and failure of the measures taken to implement the plan will be judged by the departure of the real state from the goal state. Such departures can often be estimated quantitatively. (For example, the Gini index equals the departure of the real distribution of wealth from equality: Recall Vol. 4, Figure 5.10.)

A feasible ideal must make room for imperfections and risks of several kinds: we must not equate "ideal" with "perfection" because in the real world there are no perfect systems, in particular perfect people. (Plato was quite right in restricting perfection to the realm of ideas.) In fact, even the simplest of all concrete systems, such as a deuteron or a hydrogen atom, is subject to distorting external perturbations. The number and magnitude of defects or imperfections (relative to some conceptual standard) increases with the complexity of the system. Crystallographers, solid state physicists, engineers, biologists, physicians, psychologists and many others are familiar with defects of various kinds: dislocations, impurities, deficits, excesses, deleterious mutations, organ dysfunctions, maladaptive behavior, etc.

Imperfection of some kind or other is unavoidable, but some imperfections can be removed. This holds in particular for our own moral imperfections. Even the somber Augustine admitted in his *De natura boni* (399?) that evil comes in degrees and is never complete for, after all, we are God's creatures, and God is the supreme good and therefore the source of no evil. Moreover he made some room for personal improvement though none for social reform. We, the children of the scientific and the industrial revolutions, as well as of a number of social revolutions and reforms, tend to believe in human perfectibility. However, after two world wars, on the brink of the third, and in view of uncounted economic, political and cultural crises, we cannot deny the

boundless wickedness and stupidity of some of us. So, we seem to be increasingly prepared to admit

POSTULATE 2.5 (i) Every human individual and every human group is imperfect. (ii) Every human being and every social system is perfectible. (iii) Every human individual and every human group risks degradation.

It is up to us, as private persons and citizens, which is it to be: progress or decline. It all depends on the ideals we embrace: on whether or not these are feasible as well as rooted in genuine values. In particular, when conceiving of ideals, or of plans for their realization, we must remember that every desideratum has a dual (a counter-desideratum). Some desiderata are objectionable for not matching any basic needs or legitimate wants: this is the case with self-mortification, sadism, and domination. But in other cases a legitimate desideratum may be pursued in a single-minded way only at the risk of forfeiting other legitimate desiderata. For instance, the exclusive pursuit of health will turn a man into a health freak, that of love into a Don Juan, that of knowledge into a physical cripple, and so on: recall Sect. 2.1 on value conflict.

These considerations invite a postulate; but before we can formulate it we need

DEFINITION 2.7 An ideal is

(i) *feasible* (or *attainable*, or *realistic*) if and only if it can be reached with the available means or with means that can be made available within the foreseeable future;

(ii) *good* if and only if its realization contributes to the reasonable happiness of some persons without impairing the well-being of others;

(iii) *worthy* if and only if it is both feasible and good.

And now the assumption:

POSTULATE 2.6 (i) Every human being who wishes to succeed in attaining or retaining a state of reasonable happiness has some worthy ideals. (ii) Every progressive social group contains individuals who share some good ideals.

In other words, reasonable happiness (though not necessarily well-being) cannot be had without any good ideals. Likewise a society may be viable, though not progressive, even if none of its members has embraced any good ideals. We need good ideals only to improve our lot. Without them we are doomed to stagnation or decline. Cynics and pessimists, take note.

2.3 *The Summum Bonum*

Anthropologists, sociologists and historians teach that every society, and every social group within it, has its own predominant value system. The *summum bonum* (supreme good) of the armed forces is to maximize the number of casualties of their enemy (external or internal); that of the medical profession, to improve the health of everyone in the community; that of the business community, to make as much profit as possible without losing customers — and so on. How can then one talk of *the* supreme good of everyone in every society?

There is one value, though, that everyone holds across all social groups and societies: her own life and the lives of her loved ones. This attitude is not culture-bound but universal because it is inherent in our animal nature. And, since none of us is fully self-reliant, we normally care not only for our own lives and those close to us, but also for those of others, mainly those who can help us or whom we alone can help. If we are minimally rational we realize that what we ought to value most of all is the survival of humankind and, indeed, of the entire biosphere. No other goal, no matter how worthy or unworthy, can be attained unless there are human beings in a suitable environment. Therefore we propose

NORM 2.2 The survival of humankind ought to be the supreme good of all human beings.

Since in the present state of the world universal nuclear disarmament and environmental protection are required for human survival, they come next. See Figure 2.2. Everything else, even social justice and liberty, come thereafter. The ultimate option now is peace and a clean environment or extinction. The heroic slogans, such as "Freedom or death", and "Equality or death", have become obsolete in the face of the danger of extinction by way of nuclear war or further environmental

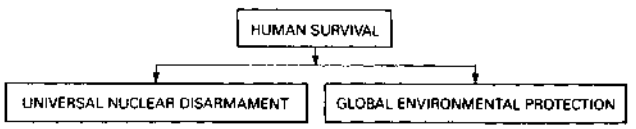


Fig. 2.2. The *summum bonum*: the survival of humankind. The immediate necessities in order to secure the supreme good: universal nuclear disarmament and planetary environmental protection. The logical relation, in self-explanatory symbols, is $S \Rightarrow D \wedge E$.

degradation. However, this should not prevent us from hoping for more than survival. Once the survival of the species is assured through universal nuclear disarmament and global environmental protection we should have the will and resources to pursue other ideals, such as universal well-being and even reasonable happiness, as well as equity and freedom.

The adoption of Norm 2.2 requires a transvaluation of values — not the one Nietzsche advocated, though, because his own trinity, namely Individual life-Selfishness-Force, was far too close to the one that has brought us to the global crisis of our time, namely Pleasure-Profit-Power. We certainly need a revolution in our value systems if humankind is to survive. For one thing, we shall have to fasten some belts and loosen others. But such a revolution, far from burying all of the traditional values, should revive some of those lost in the frenzy of violence and consumption, such as solidarity, fairness, and kindness. However, this is a matter to be tackled in Chapters 4 to 6.

2.4 *Summary*

Whereas some values are mutually compatible, others are not. For instance, good health is compatible with education — nay, they favor one another. On the other hand speed and safety, quality and cost, expediency and democracy, and many other pairs, are mutually incompatible.

Value conflicts are unavoidable. When the two desiderata in conflict are legitimate, the conflict can be resolved by way of compromise. When at least one of them is not legitimate, the resolution calls for the elimination of one of the values. In this case we must alter, however slightly, our value system.

Any changes in values should be subordinated to our maximal ideals. These should be feasible and good. If feasible, they will make room for our own imperfections and those of the systems we handle, for nothing in the real world is perfect. As well, however good, all things human risk degradation. Lest we are willing to let things run down, we must protect our legitimate values by pursuing good ideals.

Whatever our ideals may be, we and our fellow human beings must stay alive if we are to realize them. Hence the supreme good is the survival of humankind. If this ideal is adopted as the *summum bonum*, then we must make alterations in our value systems. For one thing, our priorities cannot be profit and power but peace and environmental protection. Once these are secured we can argue about the rest.

CHAPTER 3

VALUE THEORY

In this chapter we shall discuss a number of problems concerning values that were either passed over or touched on only superficially in the previous chapters. More precisely, we shall be doing some analytic axiology or value theory rather than inquiring into the sources and functions of values, or declaring our own values. In short, in this chapter we shall analyze rather than evaluate.

Axiology may be defined by specifying the general concept of a research field (Vol. 6, Ch. 14, Sect. 1.2). We shall characterize it by the 10-tuple

$$\mathscr{A} = \langle C, S, D, G, F, B, P, K, A, M \rangle,$$

where, at any given moment,

C = the community of (professional or amateur) value theorists;
S = the society that hosts (and stimulates and inhibits) C;
D = domain = all the objects, real or imaginary, capable of being evaluated;
G = general background = the collection of ontological, epistemological, and moral principles taken for granted (assumed but not discussed) in a given axiological research project;
F = the collection of formal tools (usually only elementary logic at best) employed by members of C;
B = the collection of presuppositions (theological, biological, psychological, anthropological, sociological, etc.) employed by members of C;
P = the collection of (scientific and philosophical problems) concerning value in general and particular kinds of value;
K = the stock of axiological knowledge accumulated so far — not much at the time of writing;
A = aims = the elucidation and systematization of concepts and hypotheses about value;
M = methodics = conceptual analysis, hypothesis, argument, and the gathering of data.

Axiology has yet to find its proper place in the map of knowledge. As Ruyer (1952 p. 6) said, when picking a book on the subject one

does not know whether he will find a treatise on theology, psychology, sociology, ethics, or metaphysics. This suggests that axiology, far from being a homogeneous and self-contained discipline, is a mongrel one characterized by multidisciplinarity. (See Vol. 6, Ch. 14, Sect. 3.2 for multidisciplines.) But the same fact also suggests that axiology may be regarded as branch of philosophy that, like any other branch, may borrow from other disciplines — in particular psychology and sociology, metaphysics and epistemology — and that, far from being self-serving, is cultivated mainly for the sake of other disciplines, in particular ethics and aesthetics, economics and political science. As a matter of fact we shall regard axiology as a branch of a science-oriented philosophy, rather than as a mixture of several disciplines all on the same level.

1. ANALYSIS

1.1 *Intrinsic and Instrumental*

Most value theorists teach that, whereas some things are valued for their own sake, others are valued for the sake of something else. The former are said to be *intrinsically* (or *inherently*), the latter *extrinsically* (or *instrumentally*) valuable. Thus health is said to be an intrinsic value, and medicine an instrumental value for helping us stay in or recover good health.

In our view there is no room for the intrinsic/extrinsic dichotomy because we regard all values as extrinsic and, more precisely, as relational properties. In fact, in our view whatever is valuable is so for some organism or group of organisms, in some respect and in some circumstance: change the individual or the group, the respect or the circumstance, and the value may change sign or even vanish altogether (Ch. 1, Sect. 1.1). So much so, that there would be no values in the absence of animals: whatever is valuable is so for meeting some need or want of some animal or group of animals (Ch. 1, Sect. 2.4).

What does make sense instead, and is very important indeed, is the *means-end* distinction — as long as it is not made into a dichotomy. If G is a goal, then M is a *means* for G if and only if M is necessary to reach G, i.e. $G \Rightarrow M$. If M is indeed instrumental to attain G, then whatever value is attributed to M may be said (elliptically) to be an instrumental value. But actually this is nothing but the value attributable to M.

Usually more than a single means or cause is required to bring about the desired effect of goal G. Calling $M = M_1 \wedge M_2 \wedge \ldots \wedge M_n$ the joint or successive occurrence of the causes M_1 to M_n necessary and sufficient to bring about the effect G, we express the means-end relation as a (contingent) equivalence: $M \Leftrightarrow G$. Caution: M and G are not occurrences but propositions representing such occurrences. More precisely, we have two systems: an agent (or her proxy), which shall remain anonymous, and her patient, a concrete system σ the state(s) of which the former is desirous and capable of altering. Call i the state of σ at the initial time t_i, and g the final state that the agent wishes σ to attain by time t_f on inducing a change m in σ. The propositions in question are

$M =$ ⌜m occurs in or to σ starting in state i at time t_i.⌝

$G =$ ⌜σ attains state g by time t_f.⌝

$M \Leftrightarrow G =$ ⌜σ reaches state g at time t_f if and only if m occurs in σ betwen times t_i and t_f.⌝

The means-end relation can then be analyzed in a systems-theoretic context. But it is not a dichotomy, for some states of affairs are both means and ends. For example, good health is both a goal and a means — e.g. to do one's work; friendship is desirable in itself (as a goal for the parties concerned) and as a means, e.g. to facilitate mutual help; on the other hand violence is bad both as a means (because it breeds more violence) and as a goal (because it jeopardizes the well-being of at least one person). In short, the notions of means and end are mutually complementary rather than mutually exclusive or opposing, for one and the same item may function as both means and end.

The short-sighted manager and the mainstream economist, as well as the unscrupulous politician and the Machiavellian political scientist, evaluate means and ends exclusively in terms of costs and benefits. For them, if $G \Leftrightarrow M$, then G is worth reaching by means of M only if the benefit accruing from G is greater than the cost of M. Such cost-benefit analysis is short-sighted because it omits the side effects that are bound to accompany any G, however good, and it overlooks the moral values of M and G. And this is morally wrong because either G or M or both may be wrong for violating rights or hindering the discharging of duties. It does not follow that cost-benefit analyses are wrong: far from it, they are indispensable in all spheres of individual and social life. Only, they are limited and must be supplemented with considerations of basic needs, legitimate wants, and moral constraints.

1.2 *Absolute and Relative*

In ontology one says that something is *absolute* if it exists by itself, not by virtue of or in relation to something else. In our ontology (Vols. 3 and 4) only the universe as a whole is self-existent, i.e. absolute: every part of it exists by virtue of its precursors. And, in addition to some intrinsic (absolute) properties, every thing in the world has some relational (e.g. frame-dependent) properties. Values are among such relational properties (Ch. 1, Sect. 1.1).

The axiological absolutists, from Plato and the Christian fathers to the phenomenologists Scheler, the early Hartmann, and Ortega, hold that all values are absolute (self-existent), and moreover, that they are timeless (above change) and universal (cross-cultural), for being ideal objects. Ontological value absolutists dispense with the evaluator, much as they dispense with the knowing subject — which in their view plays no role in value matters anyway. Consequently they handle axiology as a chapter of ontology, though usually without knowing it (Stern 1967 p. 121). Worse, with the exception of Plato they have no ontology to embed their axiology in. Even worse, by overlooking the evaluator — complete with his needs and feelings, knowledge and action — axiological absolutism leads inevitably to an authoritarian ethics. (See Stern 1936 and Frondizi 1963 for further criticisms.)

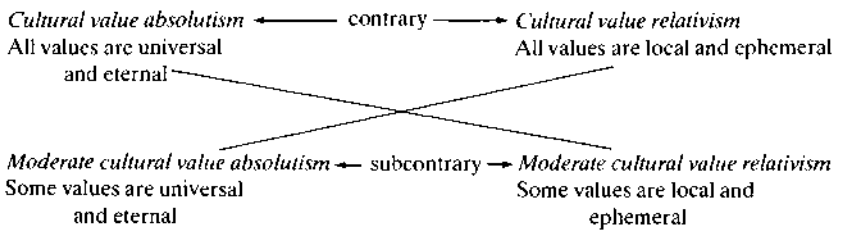
In his *Nichomachean Ethics* (Bk. 1, Sect. 5) Aristotle demolished ontological value absolutism, arguing that man does not know any goods in themselves, let alone *the* ultimate good which Plato rambled on about: he can only know good actions and good things. For example, the physician does not study Health but individuals in good, indifferent or bad states of health. In other words, the terms 'good' and 'valuable' are adjectives not nouns, for they denote properties — and in a naturalistic ontology properties do not exist by themselves but are possessed by concrete individuals. (Recall Vol. 3, Ch. 2, Sect. 5.2.) In sum, ontological value absolutism is untenable unless one admits Plato's idealistic ontology in its entirety — and foregoes the whole of modern science. A science-oriented value theory has got to be ontologically relativist. However, this does not entail that it must be anthropologically (or culturally) relativist as well. Let us explain.

We must distinguish *ontological* from *anthropological* (or *cultural*) value absolutism, i.e. the view that values are suprasocial and unhistorical, i.e. the same across all cultures and over the whole of history. This view, popular among the 18th century human nature theorists, has few

followers nowadays — except of course among sociobiologists and social Darwinists. Most social scientists and not a few philosophers lean to anthropological value relativism, or even to situationalism, the view that our choice of values depends on the situation we are in. All of the historicists, from Vico and Montesquieu to Hegel and Marx, the functionalist anthropologists and sociologists, as well as the existentialists, deny the existence of impersonal, cross-cultural and unhistorical values. To them *all* values are particular, i.e. subjective or culture-bound, and likely to change in the course of time. Their devises are *Veritas et virtus filiae temporis*, and *Different situations, different values.* (For much detail see Brecht 1959.)

The cultural value absolutist fails to account for the actual variety in value systems found by social scientists around the world, as well as for the changes in values in the course of history. But the cultural value relativist ignores that all normal human beings value well-being, friendship, freedom of movement, activity, leisure, and much more — and that those who do not are regarded as abnormal. Nor is the cultural value relativist able to evaluate value systems, in particular to speak of progress or decadence in morals and customs. He must abstain from either praising or condemning any beliefs or practices prevailing in other societies or at other times, and he must be a conformist and perhaps even an opportunist in his own milieu.

Since cultural value absolutism and relativism are mutually contrary, not contradictory, there are alternatives to them. Indeed, it is possible to adopt an intermediate view combining elements of both, namely *moderate cultural value relativism*, according to which some values are universal and permanent whereas others are bound to place, time, and circumstance. (See Bidney 1953.) Clearly, *moderate* cultural value relativism is perfectly compatible with its subcontrary, *moderate* cultural value absolutism. The following square of oppositions summarizes the four (actually only three) views in question. The diagonals denote contradictions.


Cultural value absolutism
All values are universal and eternal
contrary
Cultural value relativism
All values are local and ephemeral
Moderate cultural value absolutism
Some values are universal and eternal
subcontrary
Moderate cultural value relativism
Some values are local and ephemeral

The absolutist may object that the moderate view is unsatisfactory because, although some values may be local and ephemeral as a matter of anthropological or historical record, they *ought* to be held by everyone under all circumstances. For example, well-being and peace ought to be desired universally at all times, even though the former is rejected by the flagellant and the latter despised by the conqueror. This objection is well taken but it does not prove absolutism anymore than the practices of slander and torture prove relativism. All it does is to remind us that axiology can be descriptive or normative — in which case it turns into morality.

In other words, the collection of all values may be partitioned in two different ways, according to whether they are held to be *de facto* or *de jure*. For example, reciprocity ought always to be practised, but as a matter of fact some of us sometimes fail to return services done us. Thus reciprocity is absolute (or rather universal and perpetual) *de jure* though not *de facto*. On the other hand, *pace* Kant, truthfulness is only a situational value, for not everybody is or ought to be truthful in all circumstances — e.g. when interrogated by the secret police. Thus in addition to the two previous dichotomies — ontological and anthropological value absolutism and relativism — we have the following tetrachotomy in the set of all values.

Universal de jure (e.g. reciprocity)	*Universal de facto* (e.g. self-preservation)
Local de jure (e.g. all life for Buddhists)	*Local de facto* (e.g. politeness among the Japanese)

Only the universal *de jure* values, such as well-being, solidarity, fairness, and peace, come close to deserve being called 'absolute' — provided they are not regarded as self-existent. But even they are historical rather than unhistorical, as shown by the hard times that solidarity, peace, and other values, are having.

The preceding distinctions should not be underrated as mere academic hair-splitting. Indeed, it is arguable that humankind has gotten itself into trouble because far too many people have adopted an ethnocentric stand, mistaking their own local *de facto* values for universal *de jure* ones, while at the same time giving certain wants priority over basic needs. Because of that value intolerance we are involved in a number of

dangerous conflicts, and because of the widespread wish to gratify wishes regardless of needs, resources are being wasted on a huge scale. But the matter of subjective values deserves a separate section.

1.3 *Objective and Subjective*

Ontological value absolutists are axiological objectivists, i.e. they believe that values are subject-independent. On the other hand most ontological value relativists are axiological subjectivists, i.e. they believe that values "are not part of the fabric of the world" (Mackie 1977 p.15). Protagoras, Nietzsche, Weber, Russell, Perry, Sartre, Mackie and many others have defended axiological subjectivism. Who is right? The answer to this question depends critically on the definition of the concepts of objectivity and subjectivity with reference to values.

The epistemological concept of objectivity is clear: Something is said to be *objective* if it exists independently of any knowing subjects, i.e. whether or not it is known to someone. Thus the proverbial thunderclap in a desert is objective whether or not anyone happens to hear it; moreover it can be recorded by an instrument. We cannot use the same definition in value theory because there are no goods except for evaluating subjects: values emerged and evolved along with the animal kingdom long before animals capable of knowing, i.e. knowing subjects, appeared.

All values are subject-rooted even though not all of them are subjective. Likewise motility and vision occur only in animals yet they are perfectly objective in the epistemological sense of 'objective'. On the other hand beauty and charm are subjective in the sense that their attribution is a matter of individual appreciation. We generalize and stipulate, in line with Ch. 1, Sect. 3.1, that any values rooted to basic needs or legitimate wants are *axiologically objective*, and the rest subjective. Thus, nutrition and solidarity are axiologically objective, whereas aesthetic pleasure and ridicule are subjective. The admission that some values are axiologically objective whereas others are subjective is clearly at variance with both axiological objectivism and subjectivism.

Let us stress the difference between epistemological and axiological objectivity. In epistemology, whatever is subjective is relative (to the knowing subject); equivalently, whatever is absolute is objective. The converse is false, for there are relative items, such as distances, durations, and energies, that are both objective and relative (to the

reference frame and a fortiori to the knowing subject). On the other hand in our axiology all values are relative to the evaluator, but while some are objective others are not. Equivalently: There are objective standards or canons for determining whether a given item is really good or bad for someone's well-being. On the other hand there are no standards or canons in the case of likes and dislikes that fail to originate in basic needs or legitimate wants.

To state that some value judgments are objective and others subjective amounts to holding that, whereas some value judgments are objective, others are not. Thus "Milk is good for all newborn mammals" is an objective value judgment: it is true. On the other hand "I like milk" is subjective — yet it happens to be true of the present writer. Moral: In matters of valuation subjectivity is not a falsity indicator. Nor is intersubjectivity or unanimity a truth indicator: Sometimes we all make the same mistake, e.g. that of believing in the educational value of strapping or in the moral virtue of capital punishment.

One problem with subjective values, which the objective ones do not pose, is that of authenticity. We cannot fake primary or secondary values because the objects possessing them meet basic needs. On the other hand we may fake tertiary or quaternary values — particularly the latter — because they stem from desires or even fancies. Thus people who hanker after junk food, instant music, or tachiste ("action") painting, attribute them pseudovalues. We shall stipulate that an object is attributed a *pseudovalue* if it is attributed a value that it lacks.

To be sure, beauty is subjective, but genuine art involves certain canons that have to be learned, and an aesthetic sensibility that must be cultivated. It is typical of pseudoart that it is produced (*a*) by individuals who have not bothered to undergo a rigorous artistic apprenticeship, (*b*) for profit — of manufacturers and their managers and *marchands* — rather than for fun or for the sake of an artistic ideal, and (*c*) for mass consumption, particularly by the uneducated. Bogus art is often more dependent on technology than on inspiration; its appreciation depends more on commercial promotion than on education; it is short-lived; and it has a low, often negative, cultural value despite its high commercial value. It is a triumph of audacity over responsibility, of improvisation over tradition, of business over culture. But unlike junk food, which is a poor substitute for wholesome food, junk art is a toxic travesty that contributes powerfully to the decline of genuine culture. Addiction to bogus art renders people insensitive if not allergic to the

authentic article. And, because much of junk art expresses violence or selfishness, it contributes to moral and social decadence. However, it would be mistaken to censor it: a state that adopts a particular aesthetic view suffocates all artistic creativity. The only effective antidote is education.

The preceding distinction between authentic and bogus values makes little psychological sense. Indeed, we tend to value positively whatever gives us pleasure, even if it is objectively worthless or even disvaluable; likewise we tend to reject as disvaluable whatever gives us pain, even if it promotes our health or social standing. It takes some knowledge and willpower to discard pleasurable pseudovalues and admit painful valuables. Because of such discrepancies between what we like and what is objectively good, it would be mistaken to take the psychology of reward and punishment as the basis for value theory and action theory (as Homans 1967 tried to do).

Plotinus asked whether we desire what we value, or value what we desire. Plato, Aristotle and others held that we desire or commend things, actions, and other items, for being good. On the other hand the emotivists believe that we call 'good' whatever we regard as desirable or commendable. Each of these contending views holds part of the truth. The truth is that Plotinus's option is not an alternative, for it is not an instance of the excluded middle law. Hence we may admit one of the theses in certain circumstances and the other in others. Sometimes we desire X because we know or imagine that X is good; but we may have to know or imagine that X is good because X attracts us. Evaluation may then precede or follow a conative state, and desire may precede or follow evaluation. We are then confronted with a process wherein objective and subjective values intertwine rather than forming a circle.

1.4 *Individual and Social*

Values may be classed into individual (or personal) and social (or collective). The former can only be realized by individuals, the latter by collective action. Thus amiability and uprightness are individual values, whereas peace and social justice are social values. The social values may in turn be divided into local and universal (Sect. 1.2). The former depend on idiosyncrasies of a community or region, whereas the latter are independent of such peculiarities. (See Stern 1967.) For example, whereas environmental protection and international cooperation are universal values for benefiting everyone, industrialization is only

valuable for underdeveloped regions: the developed ones are in some respects overindustrialized.

Individualists admit only personal values, which they tend to regard as both subjective and permanent, and they deny the existence of social values. Thus Buchanan (1954), in his important criticism of Arrow's seminal work on social choice (1951), stated that "We may adopt the philosophical bases of individualism in which the individual is the only entity possessing ends or values", and in which no social entity is presumed. (See also Buchanan 1975a.) While it is true that only individuals can evaluate, it is equally true that individuals can and in fact do evaluate anything, particularly societies and their subsystems. Hence Arrow is not wrong in speaking of a "social value scale" as different from a personal one. Where he does go wrong is in assuming that such a social ranking can be derived from individual preferences: whether or not a given state of society is better than another is for social scientists to decide, not for an opinion poll to find out.

Individualists are so obsessed with individual values and rights, such as liberty and private property, that they fail to acknowledge social values, such as peace, environmental protection, popular participation, and public education. The legal consequence of this outlook is the thesis that the only justifiable cause for limiting individual liberty (e.g. by imprisonment) should be the prevention of harm or serious offense to persons other than the actor. (See e.g. Mill 1859, Feinberg 1984, 1985.) If interpreted literally, this view is indifferent to the wanton destruction of public property, warmongering, or the use of relief funds for political blackmail. And of course it favors shrinking the role of the state to that of a nightwatchman.

The sociological and axiological holists (e.g. Vierkandt, Durkheim, Bouglé, Lévy-Bruhl, Westermarck, Benedict, and Herskovists) hold that society is the source and support of *all* values. Hence they tend to deny the existence of individual (biological and psychological) values as well as of universal ones. This denial is mistaken for at least two reasons. One is that individual values are prior to all others in the sense that we cannot form or hold any social values unless we are alive and well. A second reason is that, if individual values are denied or underrated, then persons are treated as mere tools for social groups, e.g. authoritarian governments. This is not only morally wrong, as Kant taught us, but is also socially destructive, because people do not function efficiently unless they meet their basic needs and legitimate aspirations.

We have criticized sociological individualism and holism elsewhere (Vol. 4, Ch. 1, Sect. 4.2, and Vol. 7, Ch. 4, Sect. 1.1). This criticism carries over to axiological individualism and holism. We propose *axiological systemism* instead. According to this alternative (*a*) there are personal as well as social values; (*b*) whereas all social values are objective, some personal values are subjective; (*c*) personal values are constrained by social values and conversely, and this mutual constriction is a frequent cause of value conflict; (*d*) in a viable society social values are instrumental in facilitating the realization of personal values; (*e*) in a progressive society value systems are subject to criticism and change.

1.5 *Fact and Value*

Vulgar materialists (physicalists) make no room for values in their world view, even though they cannot avoid making value judgments in their everyday life. On the other hand idealists, in spite of being part of the only world there is, detach values from facts and moreover they place the former above the latter. They do not tire of warning us not to mistake value judgments for empirical ones and they reject out of hand any attempt to justify valuation with the help of knowledge — "one of the strangest aberrations ever to visit the mind of man" (Lewis 1946 p. 366). In short, for them there is an unbridgeable gap between fact and value, hence between science and axiology.

Non-idealists refuse to reify values. To them there are no values in themselves but only objects that certain organisms value for themselves or their groups. (Recall Ch. 1, Sect. 1.1.) Accordingly they regard value as an abstraction from valuation, and the latter as a special kind of fact. In particular, materialists view conscious valuation as a brain process partially conditioned by social circumstances as well as by inner biological and psychological urges. In short, for naturalism there is no fact/value barrier, and values are accessible to science. (See e.g. Skinner 1971, Ch. 5.) This does not entail that we can define *every* value in biological or psychological terms. In particular, it would be mistaken to adopt Skinner's identification of "good" with "positive reinforcer" and "bad" with "negative reinforcer", for this would leave out all social values and would lead to a hedonistic morality.

Values, then, have a comfortable place in any non-idealistic and non-physicalistic ontology. In such an ontology values, or rather valuations, are not autonomous ideas but processes occurring in

animals. In this perspective a value judgment, i.e. a proposition of the form "V is valuable", is construed as being short for "There is at least one animal for which objects with property V meet some of its needs or wants". (Recall Ch. 1, Sect. 2.4.)

Ours is then a naturalistic axiology that dovetails with our naturalistic ontology. We indulge deliberately and cheerfully in what idealists and intuitionists call the "naturalistic fallacy", for we naturalize some values and socialize others. In this regard our axiology is in the tradition of such diverse thinkers as the Greek atomists and the Stoics, Aristotle, Spinoza, Hobbes, Hume, Bentham, Marx, Durkheim, Bergson, Russell, and Skinner. But, whereas Hume, Bentham and Skinner admitted only psychovalues, and Hobbes, Marx and Durkheim recognized only sociovalues, we recognize the biological source of values as well.

Moreover, far from asserting that values are just epiphenomena, we admit their active role as guides to action, particularly action of the deliberate kind. (Consciousness, with its dual role of dashboard and steering wheel, is parallel.) The main flux goes from needs or wants to knowledge and valuation, thence to action. In fact, rational beings guide their behavior by (true or false) knowledge as well as by (right or wrong) valuation. But they take cognizance of the outcome of their action and, unless they are hopeless dogmatists, such knowledge is bound to force some corrections in both their fund of knowledge and their value system, which in turn is likely to put constraints or wings on their desires. See Figure 3.1.

In short, there is no fact-value gap. Value systems have concrete (biological, psychological or social) sources, they exist as biological dispositions or as brain processes, and they end up by being "embodied"

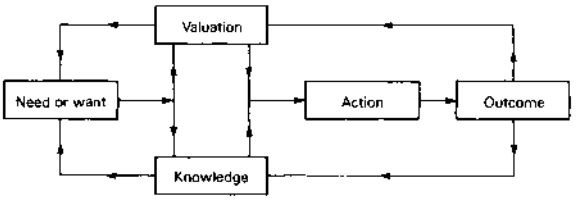


Fig. 3.1 Values as links between needs and wants, on the one hand, and actions on the other. Note the feedback loops from the outcome of action to knowledge and valuation, thence to the latter's source.

(pardon the Platonism) in actions and their outcomes. The fact-value gap is only a figment of the imagination of unworldly philosophers.

1.6 *Summary*

Value theory has traditionally been dominated by the absolute/relative dichotomy, where in turn "absolute" has been identified with "self-existent", "intrinsic", or "objective", whereas "relative" has been identified with "other-related", "instrumental", or "subjective". We have attempted to elucidate these concepts and to argue for a position midway between axiological absolutism and relativism.

We have denied that there are any absolute and intrinsic values, and have held that the intrinsic-instrumental distinction should be translated into the ends-means one. However, this distinction does not amount to a dichotomy, for one and the same item, such as well-being or freedom, may be both a means and an end. The objective-subjective distinction stays with the qualification that some desires, though subjective experiences, are objective values rather than mere whims. Examples: the desires to be useful and to improve one's knowledge. Likewise we must distinguish personal from social values, while admitting that the realization of each of them constrains that of some values in the complementary category. Finally, we have rejected the fact-value dichotomy, holding instead that evaluations are facts. Whether value judgments can be true shall be looked into forthwith.

2. VALUE AND KNOWLEDGE

2.1 *Semantic and Epistemological Status*

According to popular wisdom all value judgments are entirely matters of taste or opinion: unlike factual or empirical judgments, they are not part of knowledge and they have no truth value. The emotivist doctrine of values and morals, which has been part and parcel of positivism since Hume, is little more than an explicit formulation of that popular view. (See e.g. Ayer 1936, Stevenson 1944.)

If values and norms have only an "emotive meaning", then they are cognitively meaningless. This follows on the verifiability theory of meaning, according to which the meaning of a linguistic expression is the way it is put to the test. If all value judgments are nothing but a matter of emotion or of taste, then they are untestable and therefore

meaningless. But, even assuming that all value judgments were untestable — an assumption to be questioned below — it would not follow that they are meaningless, and this simply because the verifiability theory of meaning is false. Indeed, before imagining a test capable of finding out the truth value of a proposition, we must grasp at least part of the meaning of the latter (Vol. 2, Ch. 7, Sect. 51.). Therefore the view that value judgments are meaningless is false. The founder of the Vienna Circle admitted this point (Schlick 1930), and his follower Kraft (1937) wrote a book on values. So, the view in question has become a mere footnote to the history of philosophical extravagance.

Evaluation may involve emotion — but so does cognition. Evaluation is a kind of cognition (Lewis 1946). A rat that presses a lever for more food pellets of a certain kind knows that the food is good for him — but he will revise this evaluation if the last time he sampled food laced with poison. A person who has learned that keeping promises is necessary to stay in good social standing knows something about certain values, and she has come to know it on the strength of experience and reason. And a person who realizes that she has made mistakes in value attributions will correct the latter much in the same way as she corrects perceptual or calculation errors.

Value judgments can be justified or criticized, rather than accepted or rejected dogmatically, when they are rooted to basic needs or legitimate wants. In this case they can be shown to be true or false. Thus consider the following propositions.

(i) Freedom is good for allowing us to exercise our rights.

(ii) Honesty is good for promoting cooperation.

(iii) The partaking of meals is good for favoring social cohesion.

What is arbitrary about these value judgments? They can be justified or criticized in the context of social science. Even if someone were to disagree with any of the above propositions, he would do so because he regards it as false.

Of course some value judgments *are* subjective. For example, it is largely a matter of taste whether a given work of art *is* good. (However, recall what was said in Sect. 1.3 about pseudovalues.) But in this case all we have to do, in order to avoid fruitless controversy, is to abstain from claiming that a certain piece is objectively good: we can retreat to the more modest 'I like it', which is, in principle, testable. For example, a psychologist employing physiological techniques will have no difficulty in finding that it is true that I dislike the music of Bartok, Britten,

and the like. But this is not an aesthetic judgment: it is merely a psychological truth about myself in relation to those composers.

If all value judgments were devoid of cognitive content it would be hard to learn them and even harder to correct them in the light of reason informed by experience. Yet we keep upgrading (or downgrading or merely shifting) our value systems — e.g. as we age we may become either more sophisticated or more sensitive to basics. Unlike the emotivist and the intuitionist philosopher, ordinary rational beings demand that reasons for or against non-aesthetic value judgments be given. Only utter conformists passively receive whatever values are fashionable.

A positive rationalist may demand, in the Aristotelian tradition, that a "practical reason" be given for or against every value judgment and every norm. (See e.g. Korsgaard 1986.) Regrettably the notion of practical reason is unclear to the point of coming close to being self-contradictory. Only causes, motives, desires, and the like can be practial: reasons are conceptual. Therefore instead of saying that someone does (or ought to do) something for some "practical reason", we had better say that she does it for some cause, motive, or desire.

As for the negative rationalist, taking his cue from Popper he may demand that every value claim be criticizable (e.g. Albert 1985). This is correct but not enough: as in the case of hypotheses we need something positive and empirically accessible to justify our valuations. Basic needs and legitimate wants supply just such positive grounds. Moreover, since such deficits can be the subject of scientific investigation, the corresponding values can be discovered rather than invented. This view, orthogonal to subjectivism (in particular emotivism and conventionalism), squares with our realistic and scientistic epistemology (Vols. 5 and 6). Some more on this anon.

2.2 *Values and Science*

The received wisdom concerning the relation of axiology to science is that they are disjoint because (*a*) value claims cannot be justified on the basis of empirical data, and (*b*) science ignores values. We criticized opinion (*a*) in the preceding section, so we may now concentrate on opinion (*b*).

In discussing the relation between science and values we must distinguish the values inherent in scientific research (e.g. honesty) from those attributed by scientists to some of the things they study (e.g.

selective value). The existence of the former is obvious: scientists evaluate their own work all the time. They evaluate their own research projects, problems, hypotheses, theories, data, methods, and those of their peers and students, as being good, mediocre, or bad. For example, experimental designs are rated as good or bad depending on whether they involve adequate controls, precise hypotheses, and precise techniques — or not. Theories are rated as good or bad according to their explanatory and predictive power as well as to the way they harmonize with other theories. Entire approaches are evaluated as a matter of course. For example, contemporary historians believe that their predecessors underrated the environmental, demographic and economic factors, and overrated the importance of political, diplomatic and military events. In short, science has its *endovalues*.

But of course science can also be evaluated from the outside. Thus methodologists evaluate entire fields of knowledge as being good science, bad science, or neither. Technologists evaluate scientific methods and results as useful or useless for their own work. Statesmen evaluate economic and political theories as relevant or irrelevant to statecraft. Sociologists and historians weigh the importance of science in different cultures. Some political activists blame science for the sins of technologists and their employers — and so on.

In addition to the value judgments about science, made by scientists and nonscientists, we have the attributions of value to objects of scientific research, or *exovalues*. To be sure, physicists and chemists make no such judgments unless they work as technologists. Atoms, fields, stars, chemical reactions, and the like, are neither good nor bad: they are value-free. But the situation alters radically the moment we pass from physics and chemistry to biology or to the social sciences. Indeed, the biologist may say that certain genes are defective, that proteins are good for all organisms, and that most viri are bad for them; that genetic variety is good for species survival, and that species variety is good for the biosphere; that industrial pollution is bad for nearly all organisms, and so on. (Recall Ch. 1, Sect. 2.1 on biovalue.)

But of course the science, or rather semiscience, where value concepts crop up most often is economics, the parent of modern axiology. To begin with, economics deals with goods, i.e. items supposed to be useful to some people. Then, it studies their values in use and their values in exchange (or prices). The classical economists, in particular

Smith and Ricardo, as well as Marx, attempted to build a general theory of economic value, namely the so-called labor theory of value. According to this theory, or rather hypothesis, the real measure of the value in exchange of a commodity equals "the toil and trouble of acquiring it" (Smith 1776 Bk. I, Ch. V). Because there is no objective measure of "toil and trouble" — as Smith himself admitted — the hypothesis has remained untested. For the same reason some modern economists, such as Robinson (1962), have denounced the concept of value as non-scientific. Yet, in one guise or another value concepts keep cropping up in economics, which would be pointless if commodities were as value-free as galaxies.

If Max Weber had paid more attention to economics, or had known that biologists make value judgments all the time, he might not have waged his famous campaign for the value neutrality of the social sciences. True, the social scientist is supposed to make objective and if possible true statements, but some of these may be value judgments. Examples: "Peace is better than war", "The arms race is bad for the economy, the polity and the culture", "Birth control promotes the quality of life", "Land reform is good for everyone except landowners", "The right to work is more important than the right to vote", "Free trade is good for the industrialized nations, bad for the less developed ones", "Unemployment and inflation are bad for everyone", and "Power corrupts".

Whether or not any of the preceding statements is true, is immaterial at this point. The point is that they are value judgments made by social scientists. Moreover they are not mere expressions of likes or dislikes: they can be put to the empirical test. For example, social and economic statistics show without doubt that the arms race is bad for society because it decreases the social expenditures (particularly in public health and education), diverts funds from civilian business, causes unemployment, slows down technological progress (except for the technology of mass murder), threatens liberty and democracy, and augments the risk of international conflict. (See e.g. Sivard 1987, Bellon & Niosi 1988, Brown Ed. 1989.)

In short, the social scientist cannot avoid making value judgments. Intellectual honesty demands that he declares openly his own values (Myrdal 1942, 1969). It also demands that he makes an effort to justify them instead of stating them dogmatically: this, the concern for

empirical tests, is precisely one of the differences between science and nonscience with regard to value statements. (For a history of the relation between science and values see Graham 1981.)

2.3 *Values and Technology*

The task of the technologist is to design artifacts — things or processes, inanimate or living — or to supervise their construction or maintenance. (Recall Vol. 7, Ch. 5.) Since artifacts are supposed to be of value to somebody, the technologist must evaluate not only his own work in point of technical quality: he must also evaluate the possible social function of the artifact he designs. Furthermore he must evaluate the natural and social resources required to materialize his designs.

Technological value judgments are supposed to be objective. Thus when an engineer states that device A is *better* than device B of the same kind, he means that A is more efficient, reliable, lasting, or useful than B. And he is supposed to *back up* this value judgment with calculations and tests. Likewise when a manager, applied economist, applied political scientist, or civil servant designs a social organization — such as a firm or a public service —, an economic policy, a social program, or a political campaign, he is supposed to do so on the basis of an objective study, as well as on an estimate of costs and benefits. Every technological design is supposed to be evaluated at least twice: before and after its implementation. Before, to ascertain whether it promises benefits or some kind; after, to find out whether it works as promised, or whether it needs revision or even scrapping.

The technologist is apt to evaluate anything within his reach. Not even physical and chemical systems will escape his evaluating gaze. For example, whereas to the physicist heat is just a kind of energy, to the engineer it is a degraded form of energy because it cannot be wholly reconverted into mechanical or electromagnetic energy. Therefore to him an increase in entropy is a decrease in the value of energy; if socially conscious he will preach minimizing the increase in entropy. And the engineer, as well as the environmentalist, think of the release of heat into the environment as thermal pollution — and rightly so. Where the scientist sees a chance event, the technologist may see a risky one. Where the former may limit herself to estimating the probability of the event in question, the technologist may attempt, in addition, to measure the risk it presents. (A possible measure of the risk incurred when using means M to attain goal G is the product of the

improbability of attaining G by the cost of M, including the cost of the negative side effects of both M and G.)

Few items highlight the difference in the valuational attitudes of the scientist and the technologist as garbage. To the basic physicist or chemist the concept of rubbish makes no sense, whereas it does to the biologist, social scientist, technologist, and others. Waste disposal has become a major technological and social problem, what with every American producing about ten tons per year, and the US industry about 250 million tons of hazardous waste per year. A first problem is that of defining the very concept of garbage, which in ordinary life we associate with dirt, ugliness or even baseness. The engineer tends to think of rubbish as a misplaced thing, for what is waste here might be raw material or energy somewhere else. For example, the heat and even part of the smoke released by a smoke stack might be used in greenhouses, and most of the toxic wastes can be broken down into useful chemicals, either by chemical or by physical methods. Nothing, not even sewage, is inherently dirty or wholly useless; even radioactive waste can be used, and is actually being used on a small scale, to kill bacteria and parasites in fruits and vegetables. Hence the rational way of "disposing" of garbage is to recycle it, not to dump, bury, or burn it. Technologists are more effective transvaluators of values than value theorists. Still, neither is likely to come up with a technique for the disposal of cultural rubbish. It would seem that the only effective solution to the problem of the mass production and consumption of this kind of rubbish is popular (not just elitist) education on all levels.

2.4 *Summary*

Some value judgments are mere expressions of taste, caprice, or passion: they lack objectivity. But others are objectively true or false for being justifiable or criticizable in the light of ordinary experience or of scientific findings. This holds in particular for the value judgments of the form "If X meets a need of Y, then X is valuable for Y even if Y does not desire X".

Science is not alien to values. First, because the scientific investigator holds certain psychological values such as curiosity, ingenuity and honesty; semantic values such as clear meaning and maximal truth; and methodological values such as testability and precision. Second, because developmental and social psychologists, as well as anthropologists, sociologists, economists, and political scientists, are supposed to

study value systems in a scientific manner. Third, because social scientists, particularly those of the applied kind, cannot help making value judgments, such as "Poverty is degrading", "Greed breeds violence", and "Violence is socially disruptive", which happen to be true.

Technology is even more value oriented than science. In the technologist's purview everything, be it design, resource, or final product, has a value tag. Technological designs are supposed to be not only technically correct but useful to somebody and, ideally, harmful to nobody: they are supposed to be instrumentally good, i.e. to meet the needs or wants of some people. The facts that contemporary technology is largely geared to mass murder and to creating wants rather than to satisfying basic needs are unfortunate but not to the point. The point is that technology has become the most powerful conceptual tool for the realization of values both positive and negative.

In short, value matters are matters of fact and knowledge, not just of taste or emotion. Valuation is a mode of cognition — but of cognition of ourselves rather than of the external world. A value judgment of the form "X is valuable to Y" says nothing about the object X of valuation but it does make a (true or false) statement about the subject Y of valuation in relation to the value-bearer X.

3. VALUE MEASURES AND CALCULI

3.1 *Objective Value of a Generic Item*

Some values, such as justice, friendship, and beauty, are non-numerical, but they can often be ranked. Others, such as nutritive value, standard of living, and participation, can be quantitated. In the former case one speaks of "ordinal scales", in the latter of "cardinal (or metric) scales". In still other cases one may suspect that the values in question could be quantitated if only they were subjected to suitable theories and if adequate indicators were found. For example, until a few decades ago the performance of an artifact was evaluated intuitively, but nowadays optimization theory defines several performance indices, such as the so-called integral square error index. These are functions of the differences between the actual and the desired values of a certain property of an artifact. Whatever decreases such error is deemed to be good, and whatever minimizes it is said to be best.

We shall not incur the utilitarian error of presupposing uncritically that everything can be evaluated numerically. Nevertheless we shall assume that *basic* values, or rather the items that meet basic needs, can be assigned numbers. In line with Definition 1.14, we shall assume that the (basic) value of an item is the degree to which it meets a basic need. And we shall add that the (basic) disvalue of an item is the degree to which it generates a basic need. In either case an item may be a thing, a state of a thing, a process, an idea, or what have you. Thus, if being able to occupy a dwelling is assigned value 1, being evicted from it without having the possibility of moving to another may be assigned value -1, and being allowed to occupy only half of it may be attributed value $\frac{1}{2}$. See Figure 3.2.

More precisely, we propose

POSTULATE 3.1 Let x be a kind of items capable of satisfying or generating a basic need y of a given animal in a given state, $A(x)$ the amount of x available to the said animal, and $N(x, y)$ the amount of x that the animal needs to fully satisfy y. The value of x for the given animal in the given state relative to y is

$$V(x, y) = \text{sgn}(x, y).\left[1 - \frac{A(x)}{N(x, y)}\right],$$

where

$$\text{sgn}(x, y) = \begin{cases} 1 \text{ iff } x \text{ satisfies } y \\ -1 \text{ iff } x \text{ generates } y. \end{cases}$$

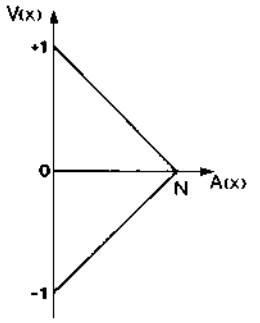


Fig. 3.2. Value is proportional to deficit or deprivation: See Postulate 3.1.

The preceding assumption allows us to define "good" and "bad" with respect to basic needs:

DEFINITION 3.1 If $V(x, y)$ is the value of item x relative to basic need y, then

(i) x is *good* relative to $y =_{df} V(x, y) > 0$;

(ii) x is *bad* relative to $y =_{df} V(x, y) < 0$;

(iii) x is *indifferent* relative to $y =_{df} V(x, y) = 0$.

The comparative concepts of better and worse are definable in terms of the quantitative concept:

DEFINITION 3.2 If $V(x, y)$ and $V(x', y)$ are the values of items x and x' respectively relative to basic need y, then

(i) x is *better than* x' relative to $y =_{df} V(x, y) > V(x', y)$;

(ii) x is *worse than* x' relative to $y =_{df} V(x, y) < V(x', y)$;

(iii) x and x' are *equivalent* relative to $y =_{df} V(x, y) = V(x', y)$.

Clearly, the better and worse relations are irreflexive, antisymmetric, and transitive: i.e. they are strict partial ordering relations.

Finally, we define "preference" in terms of "value", namely thus:

DEFINITION 3.3 An animal b given free choice between items x and y *prefers* x to $y =_{df} b$ values x more than it does y.

Actual choice, when deliberate, presupposes preference. (Random choice is no exception, for it is no choice proper: when we let the coin or the die decide for us we surrender our choice ability.) Yet to an operationist choice is identical with preference: he mistakes the indicator (choice) with the indicated (preference). This is not only a conceptual muddle: it is also empirically misleading, for indicators, particularly in psychology and social science, are often ambiguous. Thus an animal under restraint or compulsion is unlikely to choose what it prefers: if left no choice but to perform a certain action then it has no proper choice at all. Sheer ignorance can have the same effect as compulsion. Thus Buridan's ass died of hunger for ignoring that, if two haystacks are equivalent, then it does not matter which one is chosen.

The conflation of "good" with "preferred" is frequent in all of the so-called policy and decision sciences. For example, the Pareto principle

P1 If A benefits some people without harming anyone, then A is good.

is sometimes stated in the form

P2 If everybody prefers A to B, then A is better than B.

But clearly the two statements are inequivalent: Whereas *P1* is accept-

able, *P2* is not, for whereas benefits can be checked objectively, some preferences are subjective or even irrational. Thus the popular preference in North America for "strong leadership" over participatory democracy is no proof that the former is better than the latter.

We shall not subject the preference relation to the standard von Neumann and Morgenstern (1947) axioms, because these have been found to be not only empirically false but also doubtful guides to rational action, hence with no certain normative value. (See e.g. Allais & Hagen Eds. 1979, Anand 1987.) We submit that only psychological research, not a priori speculation, can determine, say, under which conditions an animal's preferences are actually transitive, hence "rational". The mathematician and the philosopher lack the empirical tools required to determine the psychological laws of preference. (See May 1954, Tversky 1969.)

Note finally that the preceding definitions, as well as Postulate 3.1, hold only for basic needs; they are not true of all desiderata, whether or not these are legitimate. Notice also that, to the extent to which the above analysis is correct, it refutes the intuitionist theses that (*a*) the value concept is simple and (*b*) the good is always knowable preanalytically and a priori. To be sure, in some cases it is easy to tell good from bad: instinct or experience may suffice. But such cases pose no interesting axiological problems. We need axiology when intuition fails us.

3.2 *Objective Value of Systems and Processes*

So far we have dealt with generic items — things or processes, natural or artificial — capable of meeting basic needs. The value concept can be further analyzed in systems-theoretic terms; in particular, we can attribute values to complex things and to processes occurring in them. Such analysis will reinforce the links between our axiology and our ontology (Vols. 3 and 4).

We start off with the intuitive idea that the more valuable systems are the more complex or advanced ones (L. Puelles, personal communication). Thus, we say that a vertebrate is more valuable than any invertebrate, and a combine more valuable than any shovel. However, there are counterexamples to this intuitive idea: for instance, a complex aggressive army is worse than a police force. To begin with, for a system to be valuable it must meet someone's basic needs or legitimate wants, on top of which it must be viable or robust rather than maladapted and readily disintegrable. Therefore we assume

POSTULATE 3.2 The more valuable of two good systems is the one that is the more complex and robust.

Example 1 An expecting mother, if likely to survive childbirth, is more valuable than her fetus.

Example 2 A good society is better than any of its components. (On the other hand some individuals of a bad society may be better than the latter.)

We now turn to processes, in particular to those occurring in the supersystem composed of the evaluator and the object of evaluation. For the sake of simplicity we shall restrict our analysis to the case where the supersystem can change from one state to another through the intermediary of a single state — which, however, may be different in different circumstances. In other words, we shall lump the transient states into a single intermediate state or means m lying between the initial state i and the final (or goal) state f of the supersystem in question. In short, we shall consider a process $p = \langle i, m, f \rangle$ and shall assume that, at least in some cases, it and its constituent states can be evaluated quantitatively. A simply assumption for the value of such process is

POSTULATE 3.3 Consider a supersystem composed of an evaluator and the things over which he has control. Call $p = \langle i, m, f \rangle$ the process whereby the system goes from its initial state i to the final state f passing through the intermediate state m, and assume that every one of these three states has been evaluated according to Postulate 3.1. The value of $p = \langle i, m, f \rangle$ is

$$V(i, m, f) = \tfrac{1}{2}[1 + V(m)] \cdot [V(f) - V(i)].$$

In words: The value of a process under (direct or indirect) animal (e.g. human) control is proportional to the difference between the values of the final and the initial states, the proportionality constant being a linear function of the value of the means employed to effect the transition. This factor does not occur in utilitarianism or in utility theory, for which only the difference between the values of the goal and the starting point matters. In our view the means are just as important as the goal, to the point where the use of the wrong means may bring the entire effort to nought. The following examples will bring this point out.

1 *Success: Increase in value with valuable means*

$$V(i) = 0,\ V(m) = \tfrac{1}{2},\ V(f) = 1,\ \therefore\ V(i, m, f) = \tfrac{3}{4}.$$

For utilitarianism, $V(i, m, f) = 1 - 0 = 1$ (overestimation of benefit).

2 *Type I failure: Investing effort in a disvaluable goal*

$$V(i) = 0, V(m) = \tfrac{1}{2}, V(f) = -1, \therefore V(i, m, f) = -\tfrac{1}{2}.$$

For utilitarianism, $V(i, m, f) = -1 - 0 = -1$ (overestimation of damage).

3 *Type II failure: Attaining valuable goals through disvaluable means*

$$V(i) = 0, V(m) = -1, V(f) = 1, \therefore V(i, m, f) = 0.$$

For utilitarianism $V(i, m, f) = 1 - 0 = 1$ (neglect of harmful effects of means).

Our postulate is of course normative not descriptive. According to it the badness of m may cancel out the goodness of f; hence an agent both rational and just will weigh his means as well as his goals. This point is of course of great importance in an ethical theory which, like ours, is based on an axiology. In our ethics, contrary to utilitiarianism and machiavellism, the end does not justify the means.

Our postulate is also relevant to action theory. Since there may be alternative means for attaining a given goal, we ought to choose the means optimizing the total value $V(i, m, f)$, rather than just the difference between the values of the initial and final states. Caution: *Optimization* is not the same as *maximization*. In many cases optima lie between minima and maxima. This is so because the maximization (or minimization) of any one variable is bound to alter at least one additional desirable feature in view of the fact that every variable (property) is related to at least one other variable. Examples: Maximizing individual liberty jeopardizes equality; maximizing equality imperils liberty; and mazimizing happiness puts both liberty and equality at risk.

Our assigning values to states and processes solves the puzzle that the nonexistence of something — e.g. the absence of a constraint — may have a (postive or negative) value. Thus, not being sick amounts to being in a state of good health, and not being at war is the same as being at peace. In general, the value of the absence of a state or process is the same as the value of the corresponding "positive" state of process.

Finally, we must answer an objection to the assigning of values to states rather than events or processes. Williams (1973 pp. 84 ff) has held that one often enjoys doing things, such as reading or rowing, for their own sake rather than for their consequences, e.g. learning or

keeping healthy. This objection is invalid because doing something is a process, and every process is a sequence of states. (Recall Vol. 3, Ch. 5, Sect. 2.3.) So, if we value a process, we must also value the states that make it up. What is true is that utilitarians, the target of Williams's criticism, overlook the states that mediate between the initial and the final stages. This oversight, of which we have not been guilty, is mistaken because in some cases the intermediate states are the more rewarding, and in others we have the choice between different routes to a given goal state. This is why in real life one weighs the means as well as the goals. More on the means-end relation in Ch. 7, Sect. 1.5.

3.3 *Subjective Value (Utility)*

The word 'utility' is ambiguous: psychologists tend to interpret it as well-being, businessmen and economists as either value in use or as profit, and political scientists as social benefit. However, there is no doubt that in utility theory and its applications the term 'utility' is synonymous with subjective value or psychovalue as defined in Ch.1, Sect. 2.2. In fact, in that theory every person is attributed her own utility function(s), and the expected utility of the outcome of a course of action is calculated with the help of that function together with the subjective probability that the person assigns to the said outcome. In short, utility theory is subjectivistic, hence nonscientific. (Recall Ch. 2, Sect. 1.1.) This, together with its mathematical form and simplicity, may account for its popular appeal.

Since utilities or psychovalues are subjective, interpersonal utility comparisons are actually conducted in an intuitive rather than a scientific way. In this regard, utility is in the same boat with pleasure and pain, aesthetic quality and food taste. But, by the same token, it should be possible for physiological psychologists to come up with objective (physiological) measures of psychovalue. (Conjecture: The joint activity of the frontal lobes, which are the evaluation centers, and the limbic system, which is the "seat" of emotion, might yield such measure.) Should this breakthrough take place, utilities would be quantitated in a non-arbitrary way and they would become interpersonally comparable. But until such time we must make do with intuitive assessments. Hence the claims to the scientific status of all the disciplines that employ the concept of utility, in particular welfare economics and social choice theory, are unjustified. (See e.g. Hahn 1982, Eichner Ed. 1983.)

If utility (or psychovalue) were to be quantitated on a scientific basis, it should be possible to combine it with objective value. For example, it would be possible to set up a number of measures of the total (objective and subjective) value of an item, such as $W = \frac{1}{2}(U + V)$, $W = (U^2 + V^2)^{\frac{1}{2}}$ and $W = U + iV$, where $i = \sqrt{-1}$. It would also become possible to state in an exact manner the so-called law of diminishing marginal utility, or decelerated increment in subjective value — which must not be mistaken for the genuine law of diminishing returns, which occurs in economics. (A possible statement of the former law is Daniel Bernoulli's: The subjective value of an item is a logarithmic function of its objective value.) Consequently the alleged law could be put to rigorous empirical tests. And presumably it would utterly fail in such cases as the tycoon (who can never have enough of anything), investment in basic research and original design (the yields of which increase exponentially rather than logarithmically), and participation in collective endeavors.

But even if it became possible to quantitate utilities in a nonarbitrary manner it would make no sense to add up the utilities of a given item for a number of individuals, thus obtaining total (or social or inclusive) utilities. Indeed, utilities are *intensive* not extensive magnitudes: they are like densities and temperatures not like lengths and costs. The impossibility of adding the utilities of different individuals has been used by such sharp thinkers as Schlick (1930) and Sen (1985) to refute utilitarianism. However, Bentham's formula about the greatest happiness of the greatest number does not call for such summation: it says nothing about the total happiness of a social group. All it states is that we should procure that nearly every *individual* be given the chance of maximizing her well-being in her own way. The trouble with this principle in its normative version is that it is hard to maximize something that has not been quantitated in a satisfactory manner.

In short, current utility theory and its applications are nonscientific for failing to define the utility functions and to put their assumptions to empirical tests. Consequently all talk about utility, even when couched in mathematical terms, is so far largely preanalytical. Therefore we had better focus our attention on objective values, which have all the advantages of objectivity over subjectivity: they can sometimes be measured and compared in a scientific manner. However, one should not exclude the possibility that one day a rigorous concept of utility or subjective value will be proposed on the strength of psychological

investigations. In the meantime all we have had from utility theory are entertaining paradoxes such as Prisoner's Dilemma and Newcomb's Problem.

3.4 *Value Calculi*

Many value calculi have been proposed. Some of them assume that all items can be evaluated in a quantitative (numerical) way, and that all value functions are additive. The first assumption was criticized in the preceding section; let us now examine the second. From the fact that the retail price (or exchange value) of two loaves of bread equals twice that of a single loaf, we tend to infer that all value functions are additive (or at least subadditive); i.e., that the value of a whole equals the sum of the values of its parts. (In obvious symbols, $V(x + y) = V(x) + V(y)$.)

Any number of counterexamples to the additivity assumption may be cited; let the following suffice. The biological value of water is not equal to the sum of the biological values of hydrogen and oxygen, if only because of the unique properties of water, such as its dissolving power. The social value of a city park does not equal the sum of the real estate value of all the square meters of which it is composed, if only because the arrangement of the trees and flower beds in it contribute to its total value. Again, the value of a well-assembled car is greater than the sum of the values of its parts. On the other hand the value of a criminal gang is even less than the sum of the (negative) values of its components. And occasionally meeting with two friends might be worse than meeting with only one, because the two may band together against oneself. In short, value functions are not generally additive.

Because value functions are not generally additive, no *general* calculus of value can be built. This impossibility is similar to that of building a general theory of analogy, or of measurement: in all such cases the nature of the case is of the essence. However, *special* value calculi, i.e. theories concerning particular species of items, such as commodities and actions, are in principle possible. For example, one may think of alternative (*vel*) and of joint (*et*) actions of a given kind, and may attempt to evaluate their outcomes in terms of the separate values of their constituents. A simple and cautious theory of this kind is the one compressed into the following three axioms.

Axiom 1 For all actions a and b, $V(a \text{ vel } b) \geq V(a), V(b)$.

Axiom 2 For any actions a and b,

$$V(a \text{ et } b) \begin{cases} > V(a), V(b) \text{ iff } a \text{ and } b \text{ are mutually compatible} \\ < V(a), V(b) \text{ iff } a \text{ and } b \text{ are mutually incompatible.} \end{cases}$$

Axiom 3 For all actions a

(i) if $V(a) > 0$, then $V(\text{not-}a) \leqslant 0$;

(ii) if $V(a) < 0$, then $V(\text{not-}a) \geqslant 0$;

(iii) if $V(a) = 0$, then $V(\text{not-}a) = 0$,

where 'not-a' designates "not doing a".

These axioms are only semiquantitative. For instance, Axiom 1 does not tell us the worth of the alternative of two actions: it just sets a lower bound. This is as should be, for the value of any composite action depends on the nature of its constituents and on the specific mode of their combination. However, the point is that the above theory is not a *calculus* proper: it does not serve to calculate anything. Its only use is that of helping analyze the concept of an action.

3.5 *Summary*

We can grade items of a great many species but not all. For example, we do not rank remote stars or exotic plants, except perhaps aesthetically. And among the items that we do rank, some can be assigned quantitative values: this is the case with most goods and services.

In grading items of some sort we must distinguish between their objective and their subjective value, if only because an item may have the one but not the other. (For example, sunsets and junk food have only subjective values.) The objective value of an item may be equalled to the degree to which it meets or generates a basic need. In the former case the value will be positive, in the latter negative: Recall Figure 3.2.

When evaluating systems we must take their complexity and viability into account. However, this is not enough: the system must be good to begin with. Of two bad systems, the more complex and robust is the worse. When evaluating processes, in particular courses of action, we must take into account not only the total change but also the means by which it was brought about. A simple measure of the value of a process is the difference between the final and the initial values multiplied by a factor containing the value of the means or intermediate state(s).

The measurement of objective values poses methodological problems the solutions to which require substantive scientific or technological knowledge. Subjective values are usually deemed to pose no such problems: we assign them in an arbitrary fashion. The utility functions are not defined at all, and their values for real people are seldom checked. Hence utility theory and its applications are exercises in academic futility. They only produce an illusion of scientific respectability.

No general value calculus is possible because the value of a whole depends not only on the nature of its components but also on that of their links, hence on the value of the emergent properties of the whole. However, certain special value theories can be constructed, e.g. for actions of certain kinds. Still, these are not calculi proper because they do not allow one to compute the value of a compound item from the values of its constituents. This conclusion would have displeased Leibniz, who dreamt of replacing every disputation with a calculation. But it is a fact of life that, in matters of value, calculation may supplement argument, experience and sentiment, but not replace them.

PART II

MORALS

CHAPTER 4

ROOTS OF MORALS

When an animal values something it normally tries to get it, sometimes at the risk of its life. But other animals are likely to stand in its way, either because they occupy the same ecological niche — hence have the same needs — or because they are predators. Whenever this is the case there is either struggle (competition or predation) or cooperation. For example, male wolfs compete for females but cooperate in the hunt — and they do not kill conspecifics.

The higher gregarious vertebrates (mammals and birds) of the same species compete among themselves in some respects and cooperate in others. Usually they do so automatically, because they have inherited certain dispositions, or because they have learned such behavior patterns early in life. In any event the social behavior of such animals is constrained by internal inhibitions and external stimuli, e.g. threats. In the absence of such constraints the social group breaks up. For instance, male wolves fighting over females never fight to the death, but obey the tacit rule "Better defeated than dead"; and baboons and many other species cooperate in the defense of their groups against predators. Man is an exception, for in many societies he can occasionally engage in murderous competition and break some of the rules. But such antisocial behavior is not the norm and moreover it is learned, so it can be unlearned. Having the most plastic of all brains (hence behaviors as well), man is redeemable.

The constraints on human social behavior are made into more or less explicit rules or norms. These norms are learned, often the hard way, in the course of individual development. This is partly a process of enculturation, i.e. of learning (or internalizing) the socially acceptable behavior patterns. Being man-made, not natural laws, such rules or norms can be altered or even broken, as is the case with criminals and heroes. All the norms of human social behavior are kept, reformed, or repealed on the belief that they contribute to the well-being of some or all members of society: they are means to helping meet the needs and wants of members of society. Whether they do in fact help is a matter that can only be settled by an empirical study of the consequences of

the actions governed by such rules. This statement reveals that our ethics is consequentialist.

Whereas some of the rules of human social behavior are moral, others are legal, and still others both moral and legal. For example, the condemnation of cruelty is moral, but there are some cruel laws; on the other hand the condemnation of rape is both moral and legal. In other words every culture, however primitive, favors two (or more) codes of social behavior: a moral code and a legal one; and the two, though distinct, partially overlap. Moreover, whereas moral codes emphasize duties, legal codes concern rights as well as duties. However, we shall argue that this asymmetry is irrational, and that in a good society rights and duties go hand in hand. In fact, the culmination of this volume will be a sort of Declaration of Universal Human Rights and Duties.

We shall be concerned mainly with moral rights and duties, not legal ones. The latter exist only within legal systems: There is no such thing as a legal right or duty outside a body of (positive) laws and jurisprudence in a society. Moral codes too are adopted or rejected by society, or at any rate by its dominant group. However, the rights and duties which are rooted to basic needs and legitimate wants — that is, to objective values — are far more fundamental and universal than any legal codes, bound as the latter are to political accidents and special interests. From a moral point of view (though not from a legal or historical one), moral norms take precedence over legal norms. After all, the whole point of any code of social behavior, as well as of any reform of it, is to ensure or block the exercise of moral rights and the fulfillment of moral duties.

In this chapter we shall explore the nature and sources of moral norms. We shall maintain that moral norms are ultimately rules of social behavior, for they come into play whenever self-interests (or rights) conflict with other-interests (or duties). Still, this does not entail that society is the only source of morality. Like values, morals have biological and psychological sources too, and this simply because the point of moral norms is to help realize (or inhibit) human values, which — as we saw in the preceding chapter — have all three sources. Thus we shall retain a grain of truth from each of the three non-theological schools concerning the origin of morals: biologism, psychologism, and sociologism. But we shall also add a dose of rationalism, since we can argue about moral problems and rules, and a dose of empiricism, since we care about the consequences of our actions (or inactions) and the performance of our moral principles.

I. RIGHTS AND DUTIES

1.1 *Right and Duty*

Human groups exist solely because every human being has needs and wants that can only be met with the help of others. If every individual were self-reliant from birth there would be no point in sociality, let alone in reciprocity or mutual help, and in the associated system of rights and duties made explicit in the moral and legal codes. But in fact no individual is self-reliant because nobody is complete, let alone perfect. We overcome our individual limitations only by joining others.

Sociality is a disposition and one that has been "encoded" in the genome of normal gregarious animals. The occasional social or antisocial individual does not last long and is unlikely to leave any offspring. Social selection puts out of action or even eliminates the asocial or antisocial persons, i.e. those who take without giving anything in return or who are unwilling to ask for help when in need.

However, like linguistic ability, sociality is only an inborn disposition. We must learn certain social skills in order to be accepted by other members of our social group(s), and even more so in order to induce others to alter traditional behavior patterns. Such social skills and graces are learned at home, in the neighborhood, at school, at work, and in informal social groups. Since the moral rules are among the norms of social coexistence, and since the latter emerge ultimately to secure the satisfaction of needs and wants, it follows that the ultimate source of morals are needs and wants, not only visceral but also psychological and social. Hence morality has the same sources as value. And, since every society evolves over time, it also follows that mores and morals coevolve with society — hence with needs and wants. Everything else, in particular rights and duties, is derivative.

Rights and duties may be partitioned into natural, moral, and legal. A *natural* right is one that an animal has conquered or been given. For example, a polar bear acquires by force the right to control a certain territory, and it gives her cubs the right to play only within her sight. Moreover the animal sees to it automatically, without any need for social control, that her offspring get the care they need: she thereby discharges her natural duty.

The concepts of natural right and duty become highly problematic in the case of humans because there are no human beings in the state of nature. Man is largely artifactual, i.e. a product of his upbringing and his activity in a given society. Change homes or societies, and different

human beings will develop. This is why, unlike all the other animals, humans need a more or less explicit recognition of their moral and legal rights and duties. This is also why the concepts of right and of duty must be analyzed as high degree predicates: Animal v, when in state w, has the right (or duty) to perform (or refrain from performing) action x in society y when in state z. (For a different analysis see Kanger 1957.)

We start by elucidating the concepts of legal right and duty by stipulating

DEFINITION 4.1 If a is an action that a member b of a human group c is (physically) capable of performing, then

(i) b has the *legal right* to do a in $c =_{df} b$ is free to do or not to do a in c (i.e. b is neither compelled to do a nor prevented from doing a in c);

(ii) b has the *legal duty* to do a in $c =_{df} b$ has no right to refrain from doing a in c.

Note in the first place that a legal right is not the same as the effective exercise of it: ordinarily rights do not come with the means to exercise them. The same holds for duties: having the legal duty to do x does not guarantee that x will be done. Secondly, according to the above definitions rights and duties are vested in individuals because they concern actions performable by individuals. To put it negatively: There are no *collective* rights or duties, just as there is no social choice and no social action. The expression 'collective right (or duty)' must therefore be read as 'the right (or duty) of every member of a certain social group'. This is not to say that rights and duties are infrasocial (natural) or suprasocial (God-given). It just means that only individuals can be assigned rights and duties or deprived of them. The idea of collective rights and duties is a holistic myth that has been used to dilute personal responsibility and to discriminate in favor or against special groups.

The above definition tells us what rights and duties are but not which they are in a given society. The answer to the which-question is not philosophical but legal: it is found in the codes of law and the jurisprudence of a land.

In addition to legal rights and duties there are moral ones. The former are specified by the law, whereas the latter are accepted or self-imposed independently. There is no moral obligation to obey the law as such; moreover if a law is bad then it is our moral duty to fight it. Nor is every moral duty enshrined in a code of law. For example, there

is no law ordering us to help one another. The most praiseworthy actions are those performed beyond the call of (legal) duty. However, in every society the legal and moral codes have a nonempty intersection. For instance, the moral rights to live and love, to work and learn, and many others, are enshrined in most codes of law.

In line with Chapter 1 we shall propose that a moral right is the ability to meet a basic need or a legitimate want, as characterized by Definitions 1.12 and 1.13. Likewise we shall propose that a requirable moral duty is a duty to help someone else exercise her legitimate moral rights. In value-theoretic terms: Moral rights are rights to realize primary, secondary or tertiary values (Definition 1.14). And requirable moral duties are duties to help others realize primary, secondary or tertiary values. The quaternary values, which are products of fancy or whim, remain beyond the ken of rights and duties, particularly in a poverty-stricken society.

What is the logical and methodological status of the above ideas on rights and duties? They are certainly not definitions, for these are supposed to hold come what may, and everyone knows that many contemporary societies do not recognize the right of everyone to well-being, let alone to reasonable happiness — except perhaps as an ideal far off in the future. Nor can our ideas on rights and duties be postulates, for they do not always match reality. There are two options left: to declare them natural rights and duties as stipulated in some theology, or to conceive of them as norms or rules.

The former move will not do in a science-oriented philosophical system like ours, and it will not help bring rights and duties down to earth. Besides, the thesis that rights and duties are natural is at variance with the finding of the social sciences, that morals are largely artificial and therefore subject to social change. The second alternative, namely to conceive of our ideas on rights and duties as norms or prescriptions for social behavior, has the advantage of helping us guide (in particular correct) social behavior, as well as redesign and rebuild society. Viewed in this way, i.e. as a system of norms, a morality turns out to be not only a sort of operating manual for handling the social machinery, but also a blueprint for building a better (or worse) society. (For a logic of normative systems see Alchourrón & Bulygin 1971.)

To put things more formally, we stipulate

NORM 4.1 If x is a human being in society y, and z is a thing or process in or out of x, then

(i) x has a *basic moral right* to z in y if and only if z contributes to the well-being of x without hindering anyone else in y from attaining or keeping items of the same kind as z;

(ii) x has a *secondary moral right* to z if and only if z contributes to the reasonable happiness of x without interfering with the exercise of the primary rights of anyone else in y.

According to this norm, everyone is entitled to enjoying well-being — even in miserable societies (Definition 1.18). Belief in such entitlement is instrumental in designing, proposing and implementing social reforms aiming at the effective exercise of basic human rights.

The above norm suggests that the pursuit of (reasonable) happiness is legitimate provided it does not hinder others from enjoying a state of well-being. But the norm does not state that everyone is entitled to reasonable happiness, because getting hold of the required means — which are often scarce — may involve entering into some competition, and in all competitions there are losers as well as winners. When the play is fair, those who win make use of special abilities which not everyone can acquire — as well as of a bit of luck, which does not strike everyone. (Luck = unexpected opportunity.) Of course, rational people will not persist along lines where they have no chance of winning honestly, but will try some alternative line. However, not everyone is rational, let alone lucky. Consequently even the best of societies are bound to contain some unhappy people: some because they have failed to realise all their ambitions, others because of neuroendocrine dysfunctions, still others because they have been victims of an education that stresses personal success above all.

Our next norm concerns duties:

NORM 4.2 If w and x are human beings in society y, and z is an action that w can perform (by herself or with help of others) without jeopardizing her own well-being, then:

(i) if x has a primary right in y to z or to an outcome of z, then w has the *primary moral duty* to do z for $x =_{df} w$ alone in y can help x exercise her primary moral right to z or to an outcome of z;

(ii) if x has a secondary right in y to z or to an outcome of z, then w has the *secondary moral duty* to do z for $x =_{df} w$ alone in y can help x exercise her secondary moral right to z or to an outcome of z.

Examples. Parents are normally the only people, or at least the best placed ones, to take good care of their children; hence they have the duty to do so. Likewise in most societies aged parents are dependent on

their adult children for their well-being, whence the filial duty. However, many do not feel this duty to be an obligation.

Since scarce resources can be had, if at all, in limited quantities or in exceptional circumstances, some needs and wants can be met only partially. In other words, the effective exercise of rights and performance of duties is limited by the availability of resources and their distribution in each society. Note also that, whereas some duties can be delegated to others — such as nurses, servants or robots — most rights are not transferable except with adequate compensation. For example, a life prisoner may wish to be given the chance of freedom in exchange for his volunteering for a risky medical experiment. The key word here is 'volunteering'.

In manipulating rights and freedoms, particularly in trading rights for obligations, we should abide by

NORM 4.3 All of the basic moral rights and duties are inalienable except for trade-offs contracted between conscious and consenting adults under the supervision of a third party capable of having the contract observed.

Examples. The rights to live, work for compensation, choose one's friends, and have a say in matters of public interest, are morally inalienable. (Whence the immorality of military draft, unemployment, choosing other people's friends, and vote buying.) So are the duties to help our relatives, friends and colleagues, to respect other people's rights, and to preserve the environment. On the other hand property rights are typically alienable.

Caution: The alienable-inalienable distinction is not a dichotomy, for there is a grey zone composed of such rights as selling parts of one's own body, e.g. blood and a kidney. Another is the right to pollute, which is tacitly recognized by any laws or rules that impose fines on polluters without forcing them to stop dumping wastes. However, these particular cases, though legally grey, are morally black, for the sale of parts of one's own body puts life at risk and in the hands of the better off, and environmental pollution is bad for everyone.

Sometimes certain moral rights or duties are not enshrined in legal codes or, worse, they conflict with the law. For example, a political prisoner who has not committed any violent act has the moral right to try and escape from prison, and we all have the duty to denounce those who plan criminal actions, particularly aggressive wars. We generalize and adopt

NORM 4.4 Morality overrides the law of the land.

Right and duties can be grouped into five main categories: environmental, biopsychological, cultural, economic, and political: See Table 4.1. Although these are different, they are not mutually independent. For example, the free exercise of civic rights (e.g. voting) and duties (e.g. protecting public goods) is necessary to protect or facilitate the access to economic, cultural, biopsychological and environmental resources; and the enjoyment and protection of the environment are necessary for both sanitary and long-term economic reasons. Shorter: The moral rights and duties of all five kinds form a *system*.

The systemic character of moral rights and duties is not universally understood. On the one hand, liberals emphasize political and cultural rights, as well as certain economic rights, such as those of hiring and firing; on the other hand socialists emphasize the biopsychological rights and the rights to work, security and education. The former overlook the fact that it is hardly possible to play an active part in politics or to enjoy culture on an empty stomach; and the latter overlook the fact that only political liberty and participation can conquer or protect other rights. As for environmental rights and duties, liberals and socialists have traditionally ignored them — whence the rise of the "Green" party. To press for rights or duties of certain kinds while overlooking the rest is a mark of naïveté or worse. And to forget about duties altogether, or to put the defense of flag or party before interpersonal mutual help and international cooperation, is to invite jingoism and fanaticism, hence bloodshed.

It may be noted that the concept of a duty introduced by Definition 4.2 is much broader than that occurring in most contemporary ethical literature. Indeed, the latter focuses on comparatively trivial sacrifices,

TABLE 4.1. The five types of moral rights and duty and one example of each.

Type	Right	Duty
Environmental	Clean environment	Environmental protection
Biopsychological	Well-being	Help others enjoy well-being
Cultural	Learning	Teaching
Economic	Work	Workmanship
Political	Liberty	Popular participation

such as giving to charities, involving the anonymity of giver and taker. In our view supererogatory duties, particularly when having a narrow scope, are of peripheral importance. As well, the identity of giver and taker is often essential to moral action: I must take full responsibility for my duties as well as for the protection of your rights. And my children and friends ought to know whether I do my duty, so that they may take example or encourage me not to fail when the going is rough.

Finally, note that we began by attributing animals other than humans natural duties and even rights, but left open the question of animal morality. Moreover we restricted legal rights and duties to humans, because these seem to be the only animals capable of establishing, breaking, and altering conventions concerning social behavior. This entails that the animal rights activists, though well-intentioned, are mistaken in their belief that there is such thing as an animal legal right. However, there are *human duties* with regard to animals, e.g. to refrain from causing unnecessary pain. These duties are of a moral nature and some of them have been enshrined in regulations, particularly those regarding animal experimentation and the welfare of farm animals (protected by law in Sweden as of 1988).

1.2 *Rights Imply Duties*

Though neither of the norms proposed in the preceding section is deducible from one another, they are related in various ways. An obvious relation is this: A duty cannot be performed unless one has both the freedom and the means to exercise the right to do so. Other relations between rights and duties are far from obvious and they vary from one social group to the next. For example, the members of a pleasure-oriented group will tend to neglect their duties, whereas those of a stern religious or political group will tend to forego their secondary rights. We stipulate the following relations among the four items in question:

NORM 4.5 (i) Primary rights take precedence over secondary rights. (ii) Primary duties take precedence over secondary duties. (iii) Primary duties take precedence over secondary rights. (iv) An individual faced with a conflict between a right and a duty is morally free to choose either, subject only to condition (iii).

In other words, first things should come first, and survival of self and others first of all. In particular, the meeting of basic needs ought to dominate the satisfaction of wants; and among the latter the legitimate

ones should take precedence over all others. Also, duty comes before pleasure. However (point (iv)), everybody has the right to sacrifice herself, even to the point of putting her well-being or even her life on the line. At the same time, nobody has the right to demand such sacrifice, or even to remonstrate anyone who fails to make it. In particular, nobody has the right to force or trick people into their death. More on this in Ch. 6, Sect. 1.2.

All three norms stated so far have been couched in the declarative, not in the imperative mode: they are propositions, not commandments. (However, they function as injunctions not as descriptions.) Being propositions, they can be conjoined together or with others to entail further propositions. A first consequence of Norms 4.1. and 4.2. is

THEOREM 4.1 Every right implies a duty.

Proof. Take a two person universe and call N_i a basic need, and R_i the corresponding right, of person i, with $i = 1, 2$. Likewise call D_{12} the duty of person 1 toward person 2 with regard to her need N_2, and D_{21} the right of person 2 toward individual 1 with regard to her need N_1. Our first two norms in the preceding Section can then be abbreviated to

Norm 4.1 $N_1 \Rightarrow R_1 \wedge N_2 \Rightarrow R_2$.

Norm 4.2 $[R_1 \Rightarrow (R_1 \Rightarrow D_{21})] \wedge [R_2 \Rightarrow (R_2 \Rightarrow D_{12})]$.

Using the principle of the hypothetical syllogism we obtain

$$[N_1 \Rightarrow (R_1 \Rightarrow D_{21})] \wedge [N_2 \Rightarrow (R_2 \Rightarrow D_{12})].$$

And, since everyone has basic needs, it finally follows, by modus ponens, that

$$R_1 \Rightarrow D_{21} \wedge R_2 \Rightarrow D_{12}. \qquad \text{Q.E.D.}$$

This theorem, and the postulate that all persons have certain moral rights (Norm 4.1), jointly entail

COROLLARY 4.1 Everyone has some duties.

We can extract further consequences if we adjoin further premises. We shall now add the anthropological, sociological and economic truism that no human being is fully self-reliant or self-sufficient:

LEMMA 4.1 Everybody needs the help of someone else to meet all of her basic needs and some of her wants (and thus realize all of her primary and secondary values as well as some of her ternary and quaternary ones).

This proposition entails the mutual help, reciprocity, or *quid pro quo* principle:

THEOREM 4.2 Helping implies being helped and conversely.

Proof. As in the proof of the previous theorem, imagine a two person universe. In this case Lemma 4.1 reads:

$$N_1 \Rightarrow H_{21} \wedge N_2 \Rightarrow H_{12},$$

where 'H_{21}' stands for "person 2 helps person 1 meet need N_1", and similarly for H_{12}. Suppose now that 1 helps 2, but 2 does not reciprocate, i.e. $H_{12} \wedge \neg H_{21}$. This is equivalent to the denial of $H_{12} \Rightarrow H_{21}$. Transposing Lemma 4.1 we get $\neg H_{21} \Rightarrow \neg N_1$. But N_1 is the case. Hence, by modus tollens, H_{21}, which contradicts our supposition. Therefore $H_{12} \Rightarrow H_{21}$. To prove the second conjunct we exchange the indices in every line of the preceding proof. Conjoining the two results we obtained the desired theorem, i.e.

$$H_{12} \Leftrightarrow H_{21}.$$

Life in a viable society requires a balanced mix of self-help with mutual help. This is why the most universal (least ethnocentric) moral maxims combine rights with duties. Witness the Golden Rule. Any moral doctrine that, like hedonism, admits only rights, or — like Kantianism — admits only duties, may be said to be *unbalanced*, hence unviable. Only psychopaths, professional criminals, warmongers, robber barons, tyrants, and members of societies in the process of disintegration, refuse to engage in mutual help — to their own long-term detriment and that of their society. (For the centrality of mutual help in animal societies see Kropotkin 1902.)

Normal social behavior is prosocial (Definition 1.10) — i.e. a matter of give and take, of balancing rights with duties and vice versa. For example, every able-bodied person has the right to work and the duty to work well; and every citizen has the right to have a say in the manner he is being governed, and the duty to participate in the political process — if only to see to it that his rights will be respected.

Although basic needs and legitimate wants generate rights, and these duties, the latter in turn restrict rights. In particular, every one of my liberties ends where someone else's begins: Your right is my duty, and your duty is my right. (See Hobbes 1651 p. 67.) The law of reciprocity, or give and take, is nothing more and nothing less than a tradeoff

between rights and duties. More precisely, there is a negative feedback between these: See Figure 4.1.

The exclusive pursuit of one's own interests with disregard for the well-being of others is not only socially destructive. It is also chimerical, for nobody is fully self-reliant, and a person does not get help from others on a regular basis unless she is willing to do something for them. (Even slavery and serfdom involved trade-offs, in particular the exchange of labor for security.) As for the exclusive dedication to the welfare of others, without regard for one's own well-being, it is self-destructive and therefore inefficient. A sick saint is as useless to society as a sated pig.

All of the preceding can be summarized into a single moral norm that we shall make into the supreme principle of our morality:

NORM 4.6 *Enjoy life and help live.*

The first conjunct is of course the devise of hedonism or individualistic utilitarianism. It is tempered by the second conjunct, the lemma of philanthropism. (The latter must not be mistaken for the negative utilitarian maxim "Let live" or "Do no harm", which goes well with the egoistic maxim "Do no become concerned, do not get involved".) Taken together the two parts of Norm 4.6 synthesize egoism and altruism, self-interest and other-interest, egocentrism and sociocentrism, autonomy and heteronomy. It may therefore be called the *selftuist* principle. We submit that this principle, far from being just a pious

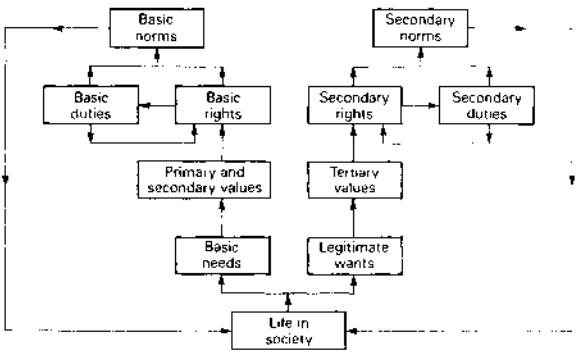


Fig. 4.1. Needs and wants of people living in society as the ultimate sources of rights and duties. Every right generates at least one duty and conversely. In turn, rights and duties are enshrined in moral norms, which react on life in society.

thought, is the most effective guide for the design or redesign, building or maintenance of a good society, namely one in which everyone has the chance of becoming reasonably happy (according to Definition 2.3).

Lest Norm 4.6 be misunderstood as Voltaire's Candide's invitation to cultivate one's own garden, we shall explicitly add its correlate in public morality, namely

NORM 4.7 *Seek the survival of humankind.*

Actually the two norms are equivalent, because we will not help the survival of humankind unless we look after ourselves and others, and if we do this we shall make a contribution to the survival of the species.

The preceding norm is the moral counterpart of Norm 2.2, which asserted that the survival of the human species is the supreme good for any rational person. Consequently we may adopt Norm 4.7 as the highest principle of our moral code.

Finally, note that rights and duties can be *positive* or *negative*. Positive rights (mays) are permissions to do, and negative rights (need nots) permissions not to do. Similarly positive duties are obligations to do (do's), and negative duties obligations not to do (don'ts). Table 4.2 exhibits a few examples of moral maxims in every one of these categories, all of them compatible with Norms 4.6 and 4.7.

1.3 *Summary*

The block diagram in Figure 4.1 summarizes our view on the sources of morals. The ultimate wellspring of morality is life in society, which has

TABLE 4.2. Instances of positive (+) and negative (−) rights and duties.

Sign	Rights	Duties
+	Seek self-realization. Participate in social activities Take whatever pleasures do not harm self or others.	Support yourself and dependents. Participate in social activities. Care (fraternity) and share (equality).
−	Don't miss opportunities Resist exploitation and oppression. Do not feel bound to do anything beyond the call of duty.	Do not use people. Avoid violence. Do not do to others what you would not like done to you.

basic requirements and generates wants. Needs and desires generate values, and these are the foundation of rights. But in any viable society the exercise of a right imposes some duties, which in turn constrain the former. Finally, rights and duties are the subject of rules of various kinds, in particular moral norms. In turn, these regulate social behavior and thus react back on life in society. So much for structure.

The content of each block in the diagram is determined by the kind of life people live in their society. However, the basic human needs are, by definition, common to all human beings. Hence the corresponding rights and duties are universal or cross-cultural. These are the ones enshrined in the basic moral norms. One of them is the principle of reciprocity or mutual help. However, this norm is insufficient, for two persons may help one another in committing a crime or in committing suicide. Hence the need for a higher principle: *Enjoy life and help live.* This maxim combines the need for self-preservation and the desire of self-realization with the duty (and convenience) of assisting fellow humans in achieving similar goals.

2. MORALS

2.1 *Right and Wrong Actions*

The notions of moral right and duty elucidated in the preceding sections allow us to introduce those of morally right or wrong actions, as well as that of a moral agent. Here is the first convention:

DEFINITION 4.2 An intentional human action a is

(i) *morally right* $=_{df}$ a facilitates the exercise of a moral right or the fulfilling of a moral duty of either the agent or someone else;

(ii) *morally wrong* $=_{df}$ a hinders the exercise of a moral right or the fulfilling of a moral duty of either the agent or someone else;

(iii) *morally neutral* $=_{df}$ a is neither morally right nor morally wrong.

Examples. It is morally right to enjoy well-being and to help others improve their well-being. It is morally wrong to exploit or oppress people, because exploitation and oppression restrict the ability to enjoy well-being. It is morally neutral to contemplate a landscape or to scratch one's head. And unintentional actions, regardless of their outcomes, are neither morally right nor morally wrong.

Rightfulness and wrongfulness come in degrees. Thus whereas some actions only facilitate the exercise of a right or the fulfilling of a duty,

others do much more than this: they are supererogatory actions that may involve sacrifice on the part of the agent. Likewise wrongfulness ranges between venial and cardinal sin.

We have not defined "right" in terms of "good" because one can think of any number of well-intentioned but foolhardy or incompetent, hence inefficient or even counterproductive deeds. Thus the concepts of good and right are logically independent from one another. However, it might be possible to defend the following alternative

DEFINITION An action *a* is *morally right* $=_{df}$ *a* is the best among all the possible good actions to the same end, i.e. that employing the most suitable and least harmful means, and having the least noxious side effects.

The problem with this definition is that in real life it is hard if not impossible to pick up the best of anything, particularly when in a hurry or when the various options, far from being at hand at the same time, appear sequentially and unpredictably. For the latter reason an important school of thought in management science recommends looking for satisficing rather than maximizing solutions (March & Simon 1958).

We judge the moral worth of an action by the intention of its doer rather than by its outcome. Occasionally a good action has an unintended bad consequence, whereas an evil one may have unintended good results. The cause of such unintended consequences is that the outcome of an action depends on three factors: the agent's skill, the state of the target, and the state of its environment (in particular the means available to the agent). We often lack the necessary skill or knowledge to bring about the desired change in the state of the object of our action. And even when in possession of both skill and knowledge, the occurrence of unpredictable (in particular random) events may spoil the best designed course of action.

Note that our analysis is consequentialist, not deontological: it enjoins us to study the situtation, as well as our abilities, and assess the possible consequences of our actions before taking action, instead of applying mechanically some received norms. However, ours is not a utilitarian analysis for, unlike Bentham (1789) and his followers, we do not define a right action as one causing pleasure or having a positive utility. In fact, the fulfilling of a moral duty may have disagreeable consequences. (Kant went to the extreme of claiming that doing one's duty is always painful, which is neither true nor conducive to moralization.)

Note also that our analysis or, for that matter, any analysis of the

notions of right and wrong, is unacceptable to the moral intuitionists, such as Sidgwick (1907), Moore (1903), Scheler (1913), and Ross (1930), for whom those are simple ideas, i.e. unanalyzable ones. We submit that intuitionism, whether in moral philosophy or in epistemology, is a variety of irrationalism and as such incapable of helping us face reality with the help of reason and experience (Bunge 1962b). More in Ch. 7, Sect. 1.5.

The previous definition allows us to introduce

DEFINITION 4.3 An animal b is a *moral agent* $=_{df}$

(i) b knows right from wrong;

(b) b approves or disapproves of right and wrong actions, i.e. takes sides; and

(c) b acts on the strength of his own approval or disapproval of right and wrong actions.

Examples. Any normal child above two years knows the reciprocity rule and has a strong sense of fairness. Therefore he is a moral agent, albeit in limited domains (Piaget 1932). Mentally retarded and severely sick or senile people may not be able to distinguish right from wrong, whence they are not moral agents. It is an open question whether animals can tell right from wrong or whether, when they do their duty, they behave, because they have been conditioned, without ever having moral doubts or qualms. As for computers and robots, they are at most moral agents by proxy, for whatever decisions they make derive from instructions received from their programmers. (Recall Vol. 7, Ch. 5, Sect. 3.1.)

Note the following points about the preceding definition. Firstly, being a moral agent involves having some moral knowledge, however crude. Secondly, the moral agent cannot be impartial. But she must make an effort to be (*a*) *objective*, i.e. to examine both sides of a moral conflict and weigh the merits and demerits of every side; (*b*) *fair*, i.e. respect the rights of all the parties in conflict, and (*c*) *unselfish*, i.e. not seek personal advantage at the price of someone's well-being. In short, the essence of the moral viewpoint is not impartiality but objectivity, fairness and unselfishness. Thirdly, the moral agent cannot be passive out of moral blindness, cowardice, or weakness of the will. We tend to fight the wicked but to forgive the morally weak although the latter may cause more harm than the former. This attitude is mistaken, because the devils would be unable to do their job without the passive complicity of morally spineless people.

Moral and legal codes concern exclusively moral agents, and they all include some notion or other of moral responsibility. We characterize the latter by

DEFINITION 4.4 A person a is *morally responsible* for action b, or for action b not having been committed $=_{df}$

(i) a is a moral agent;

(ii) a is fully conscious of the intentions that triggered b, or of those that blocked the performance of b;

(iii) a a does (or orders somebody else, or instructs a nonhuman animal, or a machine) to do b, or to refrain from doing b, of his own free will (i.e. not under compulsion).

By virtue of the first clause all and only moral agents are morally responsible for their own actions or those that they instigate. Accordingly people acting under the influence of drugs forced on them cannot be held morally responsible for what they do or refrain from doing. This does not exempt those who act or fail to act under the influence of drugs taken willingly; in particular it does not exempt drunken drivers. Nor does it excuse people who torture, maim or kill non-combatants, or political prisoners, or prisoners of war, under orders from their superiors. Indeed, they could attempt to desert or, even better, avoid becoming involved in atrocities by declaring their conscientious objection to bearing arms or to serving in a repressive police force. After all, facing moral problems and taking the responsibility for our actions and non-actions is part of being human.

According to our definition we are morally responsible not only for our intentional or deliberate actions but also for faults of omission, such as negligence or failure to act at the right moment. Whoever is in charge or control of an event the outcome of which is beneficial or harmful to others, is responsible for that event or for the failure to trigger it.

According to Definition 4.4 only individuals can be morally responsbile, for the simple reason that only individuals can have a conscience. To put it negatively: there is no such thing as collective moral responsibility. All there can be, is the sharing of all the members of a group in a given responsibility. Therefore collective reprisals are moral monstrosities.

As well, it is mistaken to shift responsibility from the individual to society ("the system", "the establishment"), even though it is true that a bad social organization breeds some ill-behaved individuals. We may

explain X's wrongdoing in terms of X's living in a defective society, but we cannot morally *justify* X's behavior, for X is responsible for whatever X does or fails to do. Unless we admit this, social and moral reform become pointless.

As with responsibility, so with credit and blame: these too can only be vested in individuals, as stipulated by

DEFINITION 4.5 A person a is to be *credited* with (or *blamed* for) action $b =_{df}$

(i) a is morally responsible for b, and

(ii) b is morally right (or wrong).

A merit of this definition is that it is far shorter and clearer than any of the abstruse theological disquisitions on blame; it is also more useful than the ordinary language analyses of the various significations of the word 'blame'.

Responsibility and blameworthiness are necessary but not sufficient to secure a moral order or to prompt a progressive moral reform. Many a tyrant has proudly taken the responsibility for his crimes, yet remained unpunished for them. We also need accountability to those likely to be affected by one's actions, or those elected or appointed to see that antisocial behavior be prevented or corrected. Therefore we add

NORM 4.8 All moral agents are accountable for those of their actions and failures to act that affect others.

This norm tacitly denies that anyone has the duty to account for his strictly private affairs: As long as his behavior does not harm anyone else, nobody has the right to pry into his affairs, let alone to reprehend or punish him. The same norm stresses that all responsibility is personal, never collective and therefore diluted. Where no individual takes credit or blame for what he does or fails to do, disaster is bound to occur. For example, it appears that the Chernobyl nuclear accident (1986) was due to the system of "collective responsibility", whereby nobody in particular was able to make the right decisions in time.

It will be noted that we have been dealing with moral not legal responsibility. Legal responsibility is defined by law and contract: it does not occur outside a legal context. Consequently legal positivists and contractarians are not concerned with moral responsibility — but everyone else is. For example, although the parents, friends and teachers of a professional adult criminal are not legally responsible for the latter's misdeeds, they may be morally responsible, for having failed

to give him the proper moral education or for not having helped him acquire the skills necessary to engage in an honorable gainful occupation.

2.2 *Moral Problems*

We know what problems in general are (Vol. 5, Ch. 7, Sect. 4). Moral problems are a very special kind of practical problem: they can only be recognized by animals endowed with a moral conscience, and solved by those having special skills and knowledge. We characterize a moral problem through

DEFINITION 4.5 A moral problem is a conflict between either a person's rights and her duties, or between her duties, or between the rights of two different persons.

Example 1. A person has promised to marry another but eventually finds out that he is no longer in love with his betrothed. Should he keep his promise even at the risk of making at least two people unhappy?

Example 2. A doctor treats a terminally ill patient. Should he tell him the truth even at the risk of increasing his patient's misery and hence abbreviating his life?

Because rights and duties are ruled by norms, the preceding definition entails

COROLLARY 4.2 Every moral problem is a norms conflict.

This suggests that a way of going about solving moral problems is to rank moral norms, much as we ranked moral rights and duties in Norm 4.2, opting always for the dominant norm. More on this in the next Section.

Because the exercise of rights and the fulfillment of duties amount to the realization of values via the meeting of needs and wants, we infer

COROLLARY 4.3 All moral problems are value conflicts.

The converse of this proposition is false. For example, someone may be torn between wishing to spend her last dollars on a meal, or on materials to finish a painting that may or may not fetch her the price of the meal. For a value conflict to be a moral problem at least two people, or a human being and an animal, must be involved; and at least one of them must need the help of the other or must compete with her for something or someone.

Corollary 4.3 suggests a second way of solving moral problems, namely ranking values belonging to the same category (Ch. 1, Sect. 3.1) and opting for the higher value. Thus in the case of the physician faced

with the terminally ill patient, his task is comparatively easy, for to him truth has mainly an instrumental value, the well-being of his patients being his top value. Other problems are of course harder. One of them is the conflict parents face between parental love and the parents's duty to educate their children. They must avoid the extremes of alienating severity and corrupting permissiveness. This case calls for a compromise involving concessions on both parts, constrained only by certain basic moral rules.

Since all moral problems are norm or value conflicts, and since conflict resolution requires some effort in addition to good will and knowledge, any solution to a moral problem, however beneficial it may be to the parties involved, carries some cost or loss to at least one of them. In this regard moral agents should behave much like managers though with different intentions: they should perform some cost-benefit analysis, however crude, before plunging into action regardless of its consequences. Only fools and prigs can afford to ignore costs to selves and others. In this regard utilitarianism is right: If we wish the good and the right to prevail on balance in the end, we must be somewhat calculating (though not selfish), and we must be prepared to pay the price, which includes the stress caused by the action and by the uncertainty of its outcome.

All moral problems boil down to identifying and resolving conflicts of interests, in particular self-interest vs. other-interest. Before meeting Friday, Robinson Crusoe faced no moral problems on "his" island. (However, a modern day Robinson would feel obliged not to pollute his environment unnecessarily in the expectation that others might arrive in future.) Therefore we cannot accept Dewey's dictum about "the fundamental moral nature of the social problems". Rather, we face moral problems because (*a*) we live in society, (*b*) we need others for our own survival and others need us for their own, (*c*) we can help or harm others, (*d*) we have options or can produce them, (*e*) we can get to know right from wrong, and (*f*) we are free, within bounds and at least sometimes, to choose what we judge to be morally right. (For the last three points see Simpson 1964.)

For these reasons we make the following

POSTULATE 4.1 All moral problems are social problems, i.e. either problems concerning personal behavior to others, or problems concerning the preservation or renovation of society.

But, although moral problems are engendered by social life, not

conversely, their solution involves moral principles, because such solutions are bound to benefit some people while harming, or at least not benefiting, others. Hence we also need

POSTULATE 4.2 All solutions to social (economic, political or cultural) problems presuppose moral principles.

Postulate 4.1 involves a distinction between personal and social moral problems, hence moralities. And Postulate 4.2 entails that sociotechnology, unlike basic social science, cannot be morally neutral. In particular, whereas the description of an economy is morally neutral, a prescription for an economy involves a moral *parti pris*.

On the one hand personal moral problems are the exclusive responsibility of certain individuals, e.g. as parents or teachers. On the other hand social moral problems are the responsibility of all the adult members of a social group. There are then two kinds of morality, personal and social, and one of the tasks of the moral philosopher is to try and render them mutually compatible. Still, since only individuals can be moral agents, it behooves them, not collectivities, to abide by a social as well as personal moral code. (More on private and social morals in Ch. 6.)

Now, moral rights and duties, hence moral problems, may concern items of five types: environmental, biological, cultural, economic, and political (Section 1.2). Consequently we may distinguish the following types of moral problem, whether personal or social:

(1) *environmental* (e.g. pollution and the depletion of non-renewable natural resources);

(2) *biological* (e.g. health care and birth control);

(3) *cultural* (e.g. the control of public information channels and of junk culture);

(4) *economic* (e.g. economic inequality and consumer protection);

(5) *political* (e.g. the arms race and power abuse).

This is a typology not a classification, for every one of the above sets overlaps partially with some other set or sets. For example, the arms race deteriorates the environment and degrades the economy, which in turn causes cultural decline as well as a decline in the quality of health care services.

The point of the above typology is to remind us that moral problems can be very complex, far more so than that of choosing to behave like a good Samaritan or like a passive onlooker of human misery. The solution to some of the above mentioned problems requires more than

moral sensibility, social skills, common sense, and ordinary knowledge. It may also call for a good deal of scientific and technological (in particular sociotechnological) knowledge and political action. Just think of designing any efficient social program.

The traditional societies, which evolved slowly, did not face most of the above-mentioned problems, particularly those requiring modern technology. Industrial civilizations change so quickly that unprecedented moral problems keep cropping up. A fanatic who sticks to some fixed set of moral norms designed for a traditional society is incapable of detecting, let alone solving, any of the moral problems raised by the nuclear arms race, overproduction, or overpopulation. He will tend to ignore them, focusing instead on side-issues, or he may wish to tackle them as if they were old problems, only somewhat more complex. For example, he will think of nuclear weapons as ordinary weapons, only more powerful, rather than as the first arms capable of wiping out the entire human species.

In addition to facing or skirting moral problems of different types we may tackle or elude moral problems of different orders of magnitude. We distinguish the following:

(i) *first order of magnitude*: global problems, i.e. problems affecting the whole of mankind, such as what to do about the arms race, overpopulation, the depletion of non-renewable resources, and environmental degradation. These are moral problems because they concern the survival of humankind. But they are also political and technological problems, for they can only be solved through political measures taken in the light of the best available technology;

(ii) *second order of magnitude*: social problems affecting large social groups, often as many as half of the world population, such as poverty, bad health, unemployment, state violence, lack of political rights, illiteracy, and the neglect of basic duties out of inability to fulfill them;

(iii) *third order of magnitude*: individual problems such as whether to steal in order to feed one's family, to obey an army draft order, to perform an abortion, or to help a neighbor in distress at one's own risk.

Regardless of type and order of magnitude, every moral problem is a practical social problem — but the converse is false. Moreover all moral problems are of the disjunctive form "*A vel non-A*", where *A* is a right action. Being of a practical nature, moral problems are not solved by consulting moral codes (particularly if obsolete) or works in moral philosophy. Codes serve to identify problems and books to analyze

them; at most, codes and books may offer broad guidelines. Moral problems can only be solved correctly by adding some practical knowledge to our moral sensibility and reasoning. For example, once we have decided to help the victim of an accident, our problem is how to do it in the most efficient way. When the time for action comes, the moral problem has turned into a technical one.

A good piece of advice concerning moral and, in general, practical problems, is never to aim for perfect solutions. Perfectionism is to be shunned in the practical sphere because practical problems are usually pressing and often very complex. A useful first approximation attainable now is usually preferable to a better solution attainable with the help of more powerful means likely to be obtained later, for in the meantime the people affected by the problem may be deprived of their means of livelihood or even of their lives. In practice perfectionism is paralyzing. Therefore it is sometimes used as an excuse for inaction.

Are all moral problems soluble or is it the case that, like in mathematics, some of them are inherently unsolvable? Most moral philosophers are optimistic. In particular, act utilitarians believe that the best solution is easily found by estimating (subjective) probabilities and (subjective) values, whereas game theorists believe that it is all a matter of writing down payoff matrices with invented entries. The truth is that, just as there is no single and fool-proof method for solving all engineering problems, so there is no single and fool-proof procedure for solving all moral problems. The reason is simply that the method of effective solution depends on the specific nature of the problem, which may involve tough conceptual (in particular moral) and practical (in particular political) items. (See also Hampshire 1983 p. 152.)

Some moral problems are insoluble because they call for resources that cannot be made available in time. Others are soluble but do not get tackled because of lack of good will (or even due to moral blindness). The latter is the case with many of the first and second order magnitude problems mentioned above. On the whole, then, given good will, most moral problems are soluble, at least in principle and given time. But any efficient and lasting solutions to them require specialized, in particular, technological knowledge. We shall return to this point in Part IV on action.

2.3 *Morals*

A moral (or morality, or moral code) is a set of norms stipulating what

is right and what is wrong, together with an order of precedence or dominance on that set. More precisely, we propose

DEFINITION 4.6

(i) A *moral norm* is a rule stipulating that actions of a certain type are morally right or wrong (according to Definition 4.2);

(ii) A moral norm is *right* if and only if it recommends performing a right action. Otherwise the norm is *wrong*;

(iii) a *personal* (or *private*) *morality* (or *moral code*) $\mathcal{M}_p = \langle M_p, \succeq \rangle$ is a set M_p of moral norms governing private life and inter-personal relations, together with a priority or dominance relation $\succeq$;

(iv) *a social* (or *public) morality* (or *moral code*) $\mathcal{M}_s = \langle M_s, \succeq \rangle$ is a set M_s of moral norms governing the relations between individuals and social systems (in particular governments) or their representatives, together with a priority or dominance relation $\succeq$;

(v) a *moral* (or *morality*, or *moral code*) $\mathcal{M} = \langle M_p \cup M_s, \succeq \rangle$ is the union of a set of personal moral norms with another of social moral norms, together with a relation $\succeq$ of priority or dominance;

(vi) a *metanorm* is a statement of the form "$R_i \succ R_j$", where R_i and R_j are rules in the union (or logical sum) of the sets M_p and M_s;

(vii) a *metamoral* (or *ethical*) statement is a statement of the form "Moral code A is superior (or preferable) to moral code B for social group C if goal D is to be achieved for the benefit of the members of C".

The third clause of the preceding definition deals with personal morality whereas the fourth concerns social morality. How are these two related? According to individualism, public morality ought to be subordinated to private morals: the former would be just a means to protect individual rights — particularly of those who have the "initial endowments" required to exercise them. (Duties would not matter unless explicitly stipulated in contracts.) On the other hand holists claim that private morality ought to be subordinated to public morality: the former would be just a means to have public duties observed — particularly when the public interest is defined as that of the ruling class. (Rights do not matter unless graciously granted by society or its rulers.) A systemic philosophy like ours (Vol. 4), containing a moral philosophy that holds rights and duties to come in pairs, countenances neither individualism nor holism. Nor can it subscribe to the subordination of duties to rights (individualism) or conversely (holism).

In our view the morally right relation between private and public

morality is one of *mutual adjustment*, not one-sided subordination. For example, if we want to protect the right to life we have the duty to participate in public affairs so that our governments prepare for peace and protect the environment — without which humankind will not survive. In turn, governments that do protect effectively our individual rights and do something for the survival of humankind are entitled to our support, e.g. in observing the (just) laws of the land and paying (justified) taxes. More precisely, we propose the following metamoral (or ethical) rule:

NORM 4.9 (i) The ultimate goal of both private and public morals is the survival of humankind. (ii) The only morally right means that may be employed to secure the survival of humankind are (*a*) the protection of individual rights and (*b*) the observance of the individual duties paired off to those rights.

Some moral philosophers claim that what is typical of moral discourse is the occurrence of the word 'ought' (or 'obligation') in it. This view, perhaps unavoidable in the perspective of linguistic philosophy and against the foil of traditional authoritarian morals, is mistaken on several counts. Firstly, the norms concerning moral rights constitute a clear counterexample: indeed, they involve permissions not obligations. Another is the collection of nonmoral rules of everyday life, such as "Thou shalt daily milk thy cow". A third is the collection of technological rules, such as "You ought to aim for optimal output/input ratios". Secondly, in principle it is always possible, and clearly advantageous from a logical viewpoint, to state moral norms is a declarative mode, as we have done in the preceding with a single exception.

Every moral norm and, a fortiori, every moral code, refers to (*a*) the moral agent supposed to abide by the norm, and (*b*) whatever is likely to be affected by the action(s) ruled by the norm. These, the targets of the agent's action, can be other animals (human or not), social groups (e.g. governments), artifacts, ecosystems, etc. The inclusion of artifacts among the possible referents of moral norms should raise no eyebrows, for we are supposed to keep in good repair the useful ones (so that others may use them, or so that no resources be wasted), and destroy or recycle the noxious ones. Likewise, the inclusion of ecosystems should not be problematic, for their deterioration is bound to cause pain or even loss of life. (Recall that in Sect. 1.1 we mentioned duties concerning the environment.)

The members of M_p and M_s are rules about actions, but any state-

ment of the form "$R_i \succ R_j$", where R_i and R_j are contained in M_p or in M_s, is about norms, hence it is a metanorm. And the formulation of a moral problem is a disjunction of the form "$R_i \succ R_j$ or $R_j \succ R_i$", so that it contains metanorms although it is not itself a metanorm.

Note that a (total) morality is not merely the sum of a personal and a social morality because, in addition to the rankings within M_p and M_s, it contains preference statements involving norms of the two kinds. Thus, the morality shared by most of the members of any given social group contains rules to the effect that certain norms of social behavior take precedence over certain rules of private behavior.

Finally, note that not every norm in a socially accepted moral code may be right: recall clause (ii) of Definition 4.6. For example, if we admit Norm 4.6 we shall conclude that it is morally wrong to kill, except perhaps for mercy or in self-defense. Hence any moral code that condones killing for any other reasons, even the killing of murderers, will be regarded as morally wrong. This example suggests that, once we have adopted a set of basic moral norms, such as our Norm 4.6, we may pass moral judgment over any moral code. However the examination of actual moral codes in the light of moral (and rational and empirical) principles is the business of ethics as distinct from morals. We shall come back to ethics in Chs. 7 to 9.

2.4 *Summary*

Morality is concerned with intentional or deliberate human actions. Actions can be morally right, wrong, or neutral, depending on whether they facilitate, hinder, or do not affect the exercise of moral rights or the fulfilling of moral duties.

An animal is said to be a moral agent just in case it is capable of telling right from wrong. All and only moral agents are responsible and accountable for their actions. There are no such things as collective moral agents and collective responsibility: agency and responsibility are individual.

All moral agents face or elude moral problems. A moral problem is a conflict between values or norms. Being responsible for his actions, the moral agent is expected to seek adequate solutions to his moral problems. In so doing he cannot proceed on his own because every moral problem is ultimately a social problem. Nor can he solve any social problems in a morally neutral fashion, because every solution to a social problem is bound to favor or harm some people more than others.

Moral problems are of several kinds — personal and social, environmental and cultural, big and small, and so on. Hence there can be no ready-made and universal moral problem solver. Moral codes help spot moral problems and guide rational thinking about them, but such problems, if important, must be investigated responsibly the way engineering or medical problems are. That is, their solution requires substantive knowledge relevant to the nature of the particular case, and some such knowledge may not be available but may have to be produced. I.e., moral problem solving may require research.

A moral code is an ordered system of norms specifying what is right and what is wrong. While some such norms regulate interpersonal activities, others guide the behavior of individuals *vis-à-vis* social groups or their representatives. Every moral code is supplemented with metamoral (or ethical) norms stating that such and such norms are superior to such and such other norms. The supreme metamoral norm in our system is that our main concern should be the survival of humankind, and that the only legitimate means to pursue this desideratum involve the protection of individual rights and the observance of the corresponding duties.

3. SOURCES AND FUNCTIONS OF MORALS

3.1 *Biological*

A moral philosophy which, like ours, is based ultimately on the recognition of needs and wants, must admit the biological roots of some moral values, hence of some rights and duties, whence of some moral norms as well: See Figure 4.1.

It would seem that there are no *natural* rights: that all rights are social, both because they concern social behavior and they are conquered, bestowed, or withdrawn by people acting together. On the other hand it may be argued that some *duties* "are in the genes". Thus the bird that feeds its chicks is genetically "programmed" to do so: It performs its parental duties without any need for a moral conscience or for social vigilance. It is possible that some human duties have a similar genetic root; in particular this may hold for child care and the impulse to help others. But it is obvious that such natural proclivities can be strengthened or weakened by social circumstances. It is also evident that other duties, e.g. that of respecting public property, are just as learned, hence social, as the rights that generate them. To state that

"every moral, pressure or aspiration is essentially biological" (Bergson 1932 p. 103) is a gross exaggeration. (For further examples of ethical biologism see e.g. Ebling Ed. 1969, and Stent Ed. 1980.) In general, biological determinism is inadequate, for exhibiting only one side of human nature.

If some of the roots of morality are biological, then (*a*) other animals, particularly those closely akin to us and hence with similar basic visceral needs, must show signs of moral behavior, and (*b*) the moralities prevailing in different human societies must have a nonempty intersection: i.e. there must be some universal moral principles concerning the preservation of the individual, his kin and his neighbor.

There is some empirical evidence for these two theses. But regrettably ethologists, anthropologists, social psychologists and moral psychologists have been somewhat remiss in their duty to amass the evidence. The thesis of animal morality, emphatically denied by theologians and idealist philosophers, has been confirmed by uncounted cases of respect for the life of conspecifics, empathy, and mutual help. Even if all such behavior patterns turned out to be genetically determined, the moral character of the corresponding norms would not be disproved for, after all, morality is about how to live in society.

Holding that morality has biological roots is not the same as stating that these are the only roots, let alone that we are born good or evil, altruistic or selfish, cooperative or competitive. The innatist thesis is false, for the newly born human is incapable of deliberate social behavior, if only for lack of motor coordination. The immature state of his brain, as well as the way he gradually learns (internalizes) the prevailing moral rules, and moves from egocentrism to cooperation, suggest that at birth humans are neither good nor evil. We have only an inborn potential to become either through education and life experience — or rather to become a mixture of goodness and wickedness, as R. L. Stevenson would have said. The same holds for knowledge and, in particular, for linguistic knowledge. (Recall Vol. 5, Ch. 1, Sect. 3.1.)

As for the thesis of the existence of a universal morality, i.e. a core shared by all moral codes and rooted to human nature, it is suggested by such moral norms as the principle of reciprocity and concern for children and the aged. However, the existence of such moral universals is ambiguous evidence: it may also be interpreted as a requirement for the viability of any human society. We shall regard it as evidence for both this thesis and the thesis that morals favor survival.

Yet there are plenty of cases that would seem to refute the hypoth-

esis of the existence of moral universals: namely bellicosity, cannibalism, infanticide, and the neglect of young girls and of the aged. However, some anthropologists (e.g. Harris 1979) have offered a plausible explanation for some of these aberrations, as well as for a number of seemingly irrational taboos: they would originate in food scarcity. In times of plenty such practices are discontinued unless enforced by a priestly caste. And infanticide and child neglect have all but disapeared wherever family planning has become widespread.

What is the biological function of moral norms? They help shape social behavior favorable to the survival and, if possible, the well-being of the higher animals in a social group. This is particularly true of parental and filial affection, the respect of the rights of others (especially the right to life), and mutual help. From an evolutionary viewpoint the function of a behavior rule explains its adoption: The animals that fail to comply with the norm succumb early in life and leave no descendants.

Does this entail that biology is in a position to explain the origin and function of morality? Darwin's earliest champion denied it emphatically: "the ethical progress of society depends, not on imitating the cosmic process, still less in running away from it, but in combating it" (Huxley 1893 p. 92). On the other hand a modern-day Darwinian thinks that "the time has come for ethics to be removed temporarily from the hands of the philosophers and biologicized" (Wilson 1975 p. 562). Wilson and his fellow sociobiologists believe, in particular, that altruism, though possibly harmful to the help giver, is advantageous to its kin, whence it must eventually have been "encoded" in certain gene(s). (See e.g. Axelrod & Hamilton 1981, Alexander 1987.)

The following objections must be raised against this speculation. Firstly, it mistakes an inborn disposition for its actualization through experience (e.g. learning). Secondly, neither altruism genes nor hard-wired neural networks for altruism have been identified. Thirdly, evolutionary biology is doing well without the kin selection hypothesis. Fourthly, developmental psychologists know that altruism can be stimulated or inhibited by rewarding or punishing feelings of empathy and helping actions — in short, it can be learned. And the fact that altruistic behavior is more likely to benefit relatives than genetic strangers can be explained simply by the fact that, for geographical and historical reasons, animals are more strongly bonded to their relatives than to total strangers (Panksepp 1986).

In conclusion, biology does not entail morality. If it did there would

be a single moral code, whereas in fact human history is littered with moral norms fallen into disuse — e.g. many concerning honor and sex. What biology can do is not to crank out a definitive morality but (*a*) to identify the objective basic biological needs of human beings, (*b*) to evaluate scientifically certain customs (e.g. rites, taboos and deviations); (*c*) to join in the criticism of the ethical views that ignore or postpone basic human needs; and (*d*) to help criticize the extravagant claims that morality and immorality are inborn and, in particular, that certain races or social classes are morally superior to others.

3.2 *Psychological*

We are all familiar with moral emotions, such as compassion, generosity, trust, shame, and remorse. The scientific study of moral emotions, initiated by Darwin (1871), is nowadays a task of only a handful of social developmental psychologists — too important a problem to attract many students of the human mind. (See e.g. Piaget 1932, Goslan Ed. 1969, Bandura 1977, Aronfred 1980, Gilligan 1982, Kohlberg 1984, Moessinger 1989.)

Regrettably moral psychology has yet to make a deep inroad into moral philosophy. Many philosophers are still under the spell of Hobbes's false dogma that man is basically selfish and violent, though smart enough to realize that it is in his own best interest to strike deals that will favor his security and well-being. This pessimistic view of human nature, which ultimately derives from the Old Testament, was opposed to no avail by Spinoza (1677), Bishop Butler (1726), and a few others. It remained so influential that, when Adam Smith turned from moral philosophy to economics, he replaced his former view (1759), that sympathy is the foremost bond of human society, with Hobbes's opinion that the main spring of human action is egoism (1776). If anything, this false and socially dissolvent opinion is even more popular today, at least among philosophers, economists and political scientists, than when Smith advocated it. We shall attack it for several reasons, not the least of them being that people do have moral feelings, some of which motivate them to perform disinterested actions.

Darwin (1871), the pioneer of moral psychology, conceived of the "moral sense" as the feeling of right and wrong. He regarded it as a social instinct and as such inherited rather than acquired. This was heresy at a time when most moral philosophers believed that the "moral law" had a divine origin, or was imposed by the state, or was the product of a wily calculation of costs and benefits, or else derived from

contracts struck by free agents. The anarchist Kropotkin (1902, 1924) made much of Darwin's view on the biological root of morality, insisting that "the first moral teacher of man was Nature". Likewise the socialist Kautsky (1906) wrote that the moral law is an animal impulse requisite for any kind of society.

A few examples should suffice to establish the existence of moral feelings and their role in the formation and implementation of moral norms. One is that in the world of children, regardless of their upbringing, "there is nothing so finely perceived and so finely felt, as injustice" (Dickens 1861 p. 92). It may be wondered whether contractarians, Kantians and libertarians have ever paused to think of the spontaneous emergence of the sense of fairness at a tender age, with little or no indoctrination — though certainly along with social intercourse.

Second example: it has been established experimentally that altruism is intrinsically rewarding — in particular, that people find it rewarding to deliver another human being from suffering (Weiss, Buchanan, Altstatt & Lombardo 1971). Third: When children between four and twelve years of age are asked to distribute a certain amount of goods among themselves, they invariably choose an egalitarian partition even if their "initial endowments" are different; the relevance of the latter, i.e. the notion of private property, only plays a role in some children above age thirteen (Moessinger 1989).

Fourth, there seems to be a natural (though not overpowering) inhibition of incest, not only among humans (Harvey & Tall 1986). Thus if given the option a mouse will choose to mate with a female that is genetically dissimilar to itself (V. Denenberg, personal communication). Psychologists have found that people prefer to consort with people that are different — though not too dissimilar. In particular, they choose friends and mates who are somewhat similar physically, psychologically and socially: they like difference and novelty, but within bounds. The incest taboos, marriage laws, and match-making rules seem to be rooted in the natural propensity to choose a middle way between close similarity and utter dissimilarity. The moral rules concerning incest would then seem to have deep biological roots.

In short, there are examples of scientifically studied behavior patterns guided by natural or spontaneous psychological inclinations. In particular, normal people, and perhaps other animals as well, have moral feelings that contribute to steering their social behavior. However, there is no consensus on what these might be. We attempt to capture this elusive idea by means of

DEFINITION 4.7 A moral feeling is an emotion elicited by the perception, memory, or imagination of an animal (possibly oneself), which one believes has need of help, or which one believes may cause or has in fact caused harm.

Some emotions, such as fear, rage, hatred, resentment, contempt, shame, and other "gut feelings", are processes occurring in the limbic system, which is mostly "hard-wired", i.e. the connectivity of which seems to be essentially determined by the genome: see e.g. Bunge & Ardila 1987. (However, the affect system can be somewhat modulated by cognition. For instance, one can learn to feel shame and contempt, as well as to control fear, rage, and hatred.) Other emotions, such as empathy, remorse, and respect, are largely learned (and sometimes unlearned). I.e., they emerge (or submerge) as a result of radical changes in neural connectivities in the course of individual development. (The control center of learned emotions is likely to lie normally in the left hemisphere.) Therefore such emotions must "implicate" not only the limbic system but also the cerebral cortex. We shall assume then that moral feelings are (*a*) processes occurring in the cortico-limbic system, (*b*) capable of being learned or at least honed or blunted, and (*c*) of social origin, i.e. caused by, or causing, social interactions.

Like all neural systems, the cortico-limbic one involves neurotransmitters that, by varying in concentration, alter the connectivity of such systems, i.e. the strength of their intercellular bridges. Other connectivity alterations are of an anatomical nature: they consist in the sprouting or pruning of synaptic boutons and dendrites. (Still, these morphological changes do not bridge the intercellular clefts: they only alter the intensity of the chemical connections.) Since any such changes modify our way of feeling, perceiving, thinking, and behaving, we shall have to look into them to discover the ultimate sources of moral feeling, reasoning, and acting. However, since brains do not work in a social vacuum, but are stimulated and inhibited by social inputs, it is likely that important alterations in social behavior, such as those caused by bereavement, change or loss of employment, and a quick increase or decrease in social interactions, affect the interneuronal connectivity, to the point that one may gain or lose in moral sensitivity or even in one's stock of moral norms. In particular, harsh punishment and the intake of psychoactive drugs are likely to cause a significant rise in the threshold of moral sensibility. In short, moral feelings are controlled from below

— the chemical level — as well as from above — the social level. Much the same holds for moral consciousness. See Figure 4.2.

Moral emotions can be studied physiologically at two levels: by tampering with the cortico-limbic system, or by recording peripheral electrophysiological responses. For example, one could establish whether or not a given moral emotion, such as empathy, readiness to help, envy, or shame, is localized in a given neural center and, if so, how it is affected by certain drugs. To this end one might temporarily inactivate the suspect center(s) by lowering their temperature to about 20°C, or one would inject certain drugs in them, while presenting the subject with a situation where another person, or an animal, is in distress. The same subject before the intervention could serve as a control. Such experiments would readily establish, among other things, whether the moral sense is lateralized. And they would suggest looking for them in homologous brain regions in other mammals, particularly other primates. The author has not come across any such studies.

The second kind of experimental study has been conducted on empathy, or feeling for others. The existence of empathic emotion has been established by combining self-reports with such electrophysiological measurements as that of skin resistance response. These studies have found, among other things, that (*a*) helping behavior is often motivated by empathy, and (*b*) imagining the target's feelings may increase empathy but is insufficient, by itself, to increase helping: knowledge of the other's distress must be "hot", not "cold", to move us to act (Batson & Coke 1983). Result (*a*) refutes Hobbes's thesis of the basic selfishness of human nature. Result (*b*) suggests that the formal teaching of ethics is no substitute for repeated exposure to human

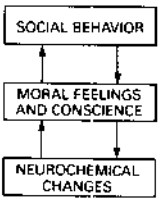


Fig. 4.2. Moral feelings, conjectured to be processes in the cortico-limbic system, are conditioned by chemical processes as well as by social circumstances. A radical alteration in either may elicit important moral changes. In turn these are bound to alter the subject's social behavior, in particular his motivation to perform right or wrong actions.

misery, let alone for active involvement in community or relief work. Presumably the individualistic and the negative utilitarians, as well as the contractarians, have been spared such experiences. For, if they had had them, they would know that many people are moved spontaneously to help people or animals in distress just because they empathize with them, and without pausing to make a cost-benefit calculation of the possible consequences, for themselves, of their actions.

Let us now move from moral feelings to moral consciousness, or conscience for short. (For the concept of consciousness see Vol. 4, Ch. 4, Sect. 5.1, or Bunge & Ardila 1987 Ch. 11.) We may define it as follows:

DEFINITION 4.8 An animal b has *conscience* (or moral consciousness) during the period $T =_{df} b$ thinks of its own moral feelings or thoughts (about moral problems, rights or duties) during T.

Like moral feelings, conscience is the prerogative of a few higher social animals. Machines can have a conscience only by proxy, and social groups never: there is no such thing as a collective conscience. The acquisition and alteration of a moral consciousness is part of the concurrent processes of mental (emotional and cognitive) development and socialization (enculturation). It begins by internalizing the moral rules prevailing in the group, and it expands by grappling with moral problems. (On the other hand according to Freud (1913) conscience would result from the confrontation of two inmates of the immaterial mind: the id and the superego. The least that must be said about this speculation is that it is untestable. The most is that, along with other psychoanalytic conjectures, it leads to obsession with oneself, hence unconcern for others, and therefore surrender of moral responsibility.)

Conscience may be modeled as a three-tiered system: moral feelings, moral reasonings, and internalized moral norms. The whole is constantly subject to variable social pressure. Moral feelings, though educable, are automatically evoked by external stimuli; in turn, they trigger moral reasonings controlled by moral norms. Moral reasonings stimulate some moral feelings (e.g. fairness and solidarity) while dampening others (e.g. envy and revenge). The three together, though in different proportions in different circumstances, trigger certain actions. The outcome of these actions may intensify or inhibit feelings, and reinforce or weaken norms, depending on whether or not the outcome is judged to be successful. See Figure 4.3.

Conscience becomes mature when the subject feels pleasure while doing the morally right thing, and guilty when he does not. When this

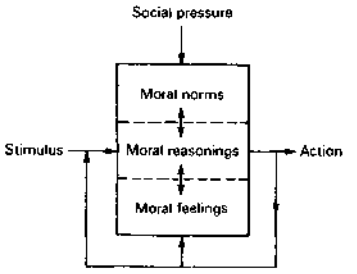


Fig. 4.3. Moral consciousness: composed of moral feelings, reasonings, and internalized norms subject to social pressure. The outcome of an action guided by moral feelings or reasonings alters the way the stimulus is "perceived" and it may hone or blunt the feelings as well as alter the norms.

stage is attained, moral conflicts tend to be felt as conflicts between prospective pleasure and prospective discomfort or even pain. Presumably, the pleasures and pains of the moral kind are processes localized in certain brain centers. It is also likely that moral conscience consists in the monitoring, by one neural center, of the moral feelings or thoughts going on in other centers: See Figure 4.4. However, conscience is not only a dashboard indicating the internal state of some parts of the brain: it is also an agent influencing our moral feelings, deliberations, decisions, and actions. In fact, moral decisions, unless spontaneous, are the result of deliberation, however quick, and they are likely to motivate behavior.

Example. The decision to try and save a drowning child by diving into stormy waters.

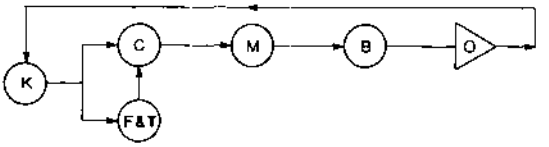


Fig. 4.4. Four neuronal systems involved in moral decisions and actions. Consciousness (C) monitors moral feelings and thoughts ($F\&T$) and both are partially controlled by knowledge (K). In turn, C is among the neural systems activating the motor systems (M) that control overt behavior (B). The outcome (O) of the latter is in part recorded by K. This feedback circuit allows one to update and correct one's fund of knowledge (including moral knowledge). Caution: This diagram is only a working hypothesis. Moral physiology is still only a wish.

Moral feelings, reasonings, and internalized norms are important because they motivate some social behavior: just think of helping behavior — or of aggression. Without conscience we would only be prepared to face routine problems, since these are the ones that promote the learning of automatic responses. Conscience and, in particular, self-consciousness, has the advantage that it helps us face totally new problems, for which our reflexes or even our experience are insufficient. In confronting unexpected situations we may either flee or take stock of our abilities, rights, and duties — i.e. to do what used to be called 'soul-searching'. Only such self-investigation can lead us to make rational moral decisions and to become better persons.

Without conscience it might still be possible to coexist with other people — but would it be worthwhile? Law and order can be kept by brute force or by calculated contract, whereas morals can only be enforced with a minimum of moral sense (conscience). If this sense is blunted, as it often is in the course of violent economic or political confrontation, particularly war, no atrocity comes as a shock, and no good action is appreciated: only winning matters. It is questionable whether people who have lost moral feelings, hence conscience, may be regarded as moral *agents* according to Definition 4.3. They are only moral *patients*. A dramatic example of loss of moral feelings and conscience in peace time, and one that made the headlines and has become a classic in social psychology, is the Queens murder. On March 13, 1964, thirty eight good people of Queens, N.Y., witnessed a woman being assaulted and repeatedly stabbed in the course of a half hour till she died. None of the witnesses bothered to alert the police, much less to intervene. They behaved the way individualistic utilitarians ("What's in it for me?") and contractarians ("What do I have to do with that?") are supposed to behave.

Fortunately most people do have a conscience, and most societies do have moral codes in addition to legal ones. However, moral sociology deserves a separate section.

3.3 *Social*

Moral codes are supposed to help spot and solve moral problems, which are subjective or interpersonal conflicts between rights and duties. Although some rights and some duties are biological and others psychological, moral norms are rules of social behavior: the hermit has little use for them. As such, moral codes are man-made, though seldom as consciously as tools or myths. Moral codes start inchoately and

become increasingly explicit and definite as they are tried out and argued about. Eventually — sometimes once they have become obsolete — they get formulated and analyzed in detail, and perhaps even incorporated into legal codes. (More on the emergence and evolution of norms in Ch. 5, Sect. 3.)

Hence morality, regardless of its sources, is ultimately a social matter: It is supposed to regulate conflicts between self-interest and other-interest, between the individual and her fellow humans. In other words, moral codes are systems of norms of social behavior aiming at both self-protection and the preservation or improvement of the social order or structure. Hence no viable society, and no viable movement of social reform, can exist without one or more moral codes.

Moral biologism (Sect. 3.1) and moral psychologism (Sect. 3.2) overlook the social roots and functions of morality. The former ignores the fact that moral behavior is a special kind of *social* behavior, and that it is largely learned — so much so that different social groups are likely to practice and preach somewhat different moral codes. And moral psychologism ignores the fact that moral feelings — such as those of empathy and benevolence — and moral reasonings and sophisms, though necessary to spot moral problems and implement moral norms, are not enough. In fact any action motivated or hindered by the moral sense is done in some society and must count on means supplied by society (which is short for "other people").

Morals are born from the wish to satisfy the individual's basic needs and wants as well as those of her dependents. For instance, we all pay at least lip service to honesty because dishonesty breeds mistrust, which in turn weakens the social bonds; and some anthropologists (e.g. Murdock 1949) believe that most societies bar incest for allowing sexual competition within the family, thus causing its breakdown. Morality is then a device of social control as well as a guideline for personal behavior; another such device is the law. On the one hand the former is indirect: it acts through example and precept, through disapproval and the pangs of conscience. On the other hand the legal system acts directly by warning, deterring or punishing social behavior of certain kinds (ideally only those of the antisocial type).

Hobbes and Hume saw in morality what Mackie (1977) called the "invisible chain" that keeps us in our (deserved or undeserved) places in society, forcing us to obey and cooperate when we would rather rebel and defect. Consequently every breach of a moral norm, and every proposal to reform it, would amount to breaking or reshaping one or

more links in the "invisible chain". This metaphor only sheds light on one side of the moral coin, namely duty. Actually every morality not only discourages actions of a certain type (mostly of the antisocial kind) but also encourages actions of other types (mainly prosocial ones). Morality is an invisible wing as much as an invisible chain: a winged chain rather than a chained wing. This could not be otherwise because humans, like the rest of primates, combine kindness with cruelty. As Wells (1916 p. 426) exclaimed in the middle of the Great War: "How kindly men are — up to the very instant of their cruelties!".

Every society has a single legal code (or rather family of legal codes), although it is often enforced differently according to the social status of the individual accused of breaking it. (For example, it is well known that, in racist societies, the members of the oppressed ethnic groups are usually punished far more severely than their oppressors if only because the latter can afford to pay for better lawyers.) On the other hand a complex society, particularly a modern industrialized one, has an entire family of moral codes: one for businessmen and another for workers, one for bureaucrats and another for the law enforcement officers, one for mathematicians and another for plumbers, one for priests and another for their faithful, and so on. These various codes are not always mutually compatible. The more complex a society, the larger the number of moral codes prevailing in it; and the more divided the society, the less compatible the various codes are with one another.

Sociologists have found that urbanization favors the tolerance of ideas, interests or practices that one does not share (e.g. Wilson 1985). There would seem to be two causes for this. One is the heterogeneity of the urban milieu, which would be unlivable without a modicum of tolerance. Another is the higher level of education of urbanites, who as a rule are more subject to school and media influences than small town people. Typically the latter are bigoted and more easily drawn by fanatic religious and political groups.

Like symbols, conventions, and machines, moral codes are neither natural nor God-given but human-made. However, moral codes are not artifacts of the same kind as time-pieces or computers, for, like languages, they are neither designed nor optional: they are social products and they are not easily altered, much less discarded. Still, they are human-made and so there is nothing sacred about them: they ought to be altered to suit new needs or legitimate wants. As Engels and Durkheim said, every society has the morality it needs — though sometimes social progress outstrips morals.

Yet, although morality grows out of social relations, nay is part of the social cement, it is not an epiphenomenon but reacts on social behavior, now constraining, now encouraging it. In other words, moral norms both "reflect" society and its changes, and contribute to the preservation or the reform of society. When the social group starts to decline without disbanding, mores and morals decline: old habits disappear, and so do solidarity, sharing, kindness, and tolerance. When morality dies, every family or even every individual fends for itself. The motto of the fascists *squadristi* was *Me ne frego* ("I don't care").

Having stressed the social root and function of morality, we must warn against moral sociologism. This is the thesis that morality is *nothing but* a social control device — a thesis first defended by Trasymachus (according to Plato in his *Republic*) and adopted in slightly different ways by Hobbes (1651), Montesquieu (1748), Engels (1878), Durkheim (1895), and Lenin and his followers (see Hörz & Wilke Eds. 1986). Moral sociologism is only partially true because (*a*) it ignores the biological roots of morality, i.e. the basic human needs; (*b*) it ignores the existence of moral feelings and conscience, hence the existence of inner moral conflicts; (*c*) it is incapable of explaining the moral differences between members of the same social class or occupational group — e.g. between liberal and conservative businessmen, or anticapitalist and procapitalist workmen; (*d*) it does not account for the moral constraints on business practices (e.g. those intended to protect the consumer); (*e*) it overlooks the moral constraints on political and military action (e.g. the "laws of war" included in the Geneva Convention); (*f*) by regarding ethics as *la physique des moeurs* (Durkheim 1895), moral sociologism mistakes morals for mores: it glosses over the differences between right and wrong customs, and (*g*) it underrates the power of moral criticism — which, after all, has often been a powerful social leaven, e.g. in the abolition of slavery and child labor.

The popularity of moral sociologism can be explained not only because it rightly emphasizes the social source and nature of morality, but also because it wrongly adopts the deontological or traditional view according to which morals are solely concerned with duties, authority, and respect. If, as in an authoritarian society, there are no rights alongside with duties, then there are no moral problems, hence no need for a moral code besides a legal one. A moral norm is such that its implementation is right and its breach is wrong — and the concepts of rightfulness and wrongfulness intersect but do not coincide with those of socially acceptable and unacceptable behavior respectively. Unlike

natural and social laws, moral rules are optional, not binding. A person goes to jail only if he gets caught breaking a law while performing an action that may or may not conform to the prevailing moral code. For the righteous individual morals come before law and custom.

Finally, a word about morale, or the attitude of the members of a group toward the "cause" or goal they are supposed to be working or fighting for. A high morale is optimism together with dedication, whereas a low morale is pessimism (defeatism) together with slackness. Morale has an ambiguous relation to morals. A platoon out to kill the greatest number of "enemies", an organized crime group, or a gang of fanatics, may have a high morale accompanied by low moral standards regarding people not in the group. But, since maintaining a high morale requires mutual help, self-sacrifice, and discipline, a low exomorality is compatible with a high endomorality.

3.4 *Summary*

The function of moral norms is, to put it metaphorically, the protection of values. Since values are biological, psychological, or social, it should come as no surprise that morals have biological, psychological or social roots. Morals help solve moral problems, which are ultimately conflicts between the rights and the duties of a person, or between the rights or the duties of two or more persons. We would face no moral problems if we did not share the same niche with others, and if we were able to meet our needs and wants without the assistance of others.

Moral feelings and conscience play an important role in the recognition and solution of moral problems. This fact suffices to refute the purely rationalistic approach to morality, whether it be that of the contractarians from Hobbes (1651) to Gauthier (1986), or that of Kant (1785) and Kohlberg (1981).

Although moral norms have all three above-mentioned roots, they are rules of social behavior. They regulate the conflicts between self-interest and other-interest, i.e. the autonomy-reciprocity tension. If every individual were isolated from every other one, or if everyone were totally free to enter into contracts with others, or if our behavior were fully genetically predetermined, or if societies were organisms, there would be no moral problems, hence no need for moral norms.

CHAPTER 5

MORALITY CHANGES

Morals are not perennial but change along with individual and social development. They change because our needs and wants, hence some of our values alter as we grow up and as our societies become more (or less) urbanized, industrialized, cultured, bureaucratized, militarized, and so on. In particular, unlike our basic needs, our wants change rather quickly with the economy and the culture. Consequently our tertiary and quaternary values change as well, as a result of which our rights and duties change — changes which in turn alter our secondary norms. Recall Figure 4.1.

True, in most cases morals lag behind mores; i.e. moral changes do not follow automatically changes in their sources but come, if at all, somewhat later. In other words, moral inertia is greater than social inertia. Nevertheless moral changes do occur eventually in response to value changes, and sometimes as a result of technological or political innovation. For example, the popularization of the automobile has strengthened individualism, and that of oral contraceptives has shattered traditional sexual morals. And the threat of nuclear annihilation, accompanied by the quick deterioration of the environment, have awakened the social conscience of some people and dulled that of others.

In this chapter we shall take a quick look at the ontogeny and phylogeny of morals. That is, we shall examine the emergence of moral norms in the course of individual development from an early age on, and we shall study some of the changes in morals induced by alterations in lifestyle, e.g. from rural to urban.

We shall also study briefly the human condition. Are humans natural, artifactual, or both? And are we born good or evil? Next we shall study the two coins of human sociality: competition and cooperation. We shall argue that we need cooperation to survive, and competition to advance. The moral counterpart of this thesis is obvious: Enjoy life and help live.

1. DEVELOPMENT AND EVOLUTION

1.1 *Nature and Nurture*

According to a number of influential theologians and philosophers — among them Calvin, Hobbes and Kant — man is born evil and he can be made to behave decently only out of fear — of Hellfire or of the gallows, as the case my be. This moth-eaten view has recently been given a genetic twist: We would all be naturally selfish because organisms would be just machines serving the survival of genes (Dawkins 1976). But the selfish gene hypothesis has been rejected by most biologists because that which survives or succumbs is not the genome but the whole organism, and that which evolves is not the individual but the entire population or even the whole biosphere. (Recall Vol. 7, Ch. 3, Sect. 3.1.)

As for the hereditarian claim that we are born, not made, criminals or good citizens, it has no basis in either human genetics (Russell 1976) or psychology (Kamin 1974). The claim is based on a serious confusion between causation and correlation (e.g. criminality-race), and it is being used as an ideological weapon to justify racial discrimination, capital punishment, unemployment, and the dismantling of the relief state (Kamin 1986). The born-criminal thesis is itself criminal, and it makes a mockery of the ideas of criminal rehabilitation and of moral responsibility (since we cannot be responsible for our genomes).

Radical nativism died long ago in psychology and, in particular, in moral psychology, i.e. the psychological study of morals. (For the attempt to resurrect it in psycholinguistics see Vol. 7, Ch. 4, Sect. 3.1.) To be sure we inherit most of our genes, and these control, among other things, the development of the brain — the organ of emotion, cognition, moral behavior, and much more. However, the genome is only one of the two independent variables on which development depends: the other is the environment. Whatever we become is a result of the interplay of the two.

Barring certain serious genetic diseases, anyone can learn to become good or evil, nurse or warrior, teacher or thief, depending on the circumstances of his upbringing and the opportunities offered by his society. To be sure there are native propensities, but these have to be cultivated to become actualized — or neglected to prevent them from becoming realized. The cause of this is that a part of the higher vertebrate brain is plastic not rigid: We reorganize it ourselves as we

feel and perceive, learn and act. (Recall Vol. 4, Ch. 4, or see Bunge 1980, or Bunge & Ardila 1987.)

No doubt, some people are more teachable (in particular conditionable), motivable and creative than others. But the point is that we are born educable not educated. In particular we are not born knowing any morals — nor, for that matter, anything but a few primitive motor responses to selected internal or external stimuli. From birth to youth, and from adulthood to old age, we develop morally as well as cognitively and in other respects. And this development, though made possible by inheritance, is steered by the environment. Aristotle (*Nichom. Ethics* Bk. II, Sect. 1) knew it: "none of the virtues arise in us by nature", but "moral virtue comes about as a result of habit". We are born with only the power to become temperate, courageous, just, etc.

Most of the serious students of moral development are enrolled in either of two rival camps: *cognitive-developmental* theory (e.g. Piaget 1932, Kohlberg 1984), and *social-learning* theory (e.g. Bandura 1977, Aronfred 1980). Roughly speaking, whereas the former lean towards Kantian rationalism, the latter are empiricist. (The ratio-empiricist synthesis is still in the offing.) The cognitive-development theorists claim that moral development is but an aspect of cognitive development: They focus on the way children speak about moral problems — not on the way they feel, and seldom on the way they act. They see moral development as an inevitable process punctuated by some leaps and, moreover, as progressive.

Piaget postulated two main stages of moral development, characterized respectively by egocentrism *cum* heteronomy, and by acentrism *cum* autonomy. The former is the *morale du devoir*, characterized by obedience; the latter is the *morale du bien*, characterized by mutual respect, fairness, reciprocity, and cooperation. As children develop they advance from the first to the second stage. (The theory, or rather hypothesis, fails to account for the cheats and criminals of the real world. Remember that Piaget's subjects were not New York street urchins but came from decent Swiss families.)

Kohlberg distinguished no less than six, and occasionally seven, stages of moral development. Every one of them would be inferior to the next — from the helpless yet spoiled brat to the fearless armchair saint. The first stage is that of blind obedience; in the second, the child observes the prevailing rules as long as they suit him; in the third he does what the others expect him to do; in the fourth he is law-abiding

— for what would happen if everybody were to break the law?; in the fifth he acquires a moral conscience: he distinguishes morals from mores, and learns that there are certain basic and universal rights and duties; in the sixth, which is optional and therefore rarely attained, the individual is a full-grown Kant who treats others as ends in themselves and adopts only universal moral principles. Thus moral psychology would justify certain moral maxims in addition to accounting for their emergence: It would have prescriptive as well as descriptive power.

The strongest point of cognitive-developmental theory is that psychological research has established beyond doubt the reality of *cognitive* developmental stages. Moreover there is neurophysiological evidence that the onset of a new stage consists in the reorganization or rewiring of neural circuits (Thatcher, Walker & Giudice 1987). The main trouble with the theory is that it overlooks affect, action, and social stimuli and inhibitors as well as social structure (Moessinger 1989). An additional problem with the hypothesis is that it underrates the role of moral inventions and conventions as well as the process of moral degradation.

C. Gilligan (1982) has criticized the cognitive-developmental theory for different reasons, namely for focusing on rights and justice while overlooking care and "relationships" (bonds). She regards this shortcoming as a product of male bias. The criticism may be correct but the explanation is not, for males too learn to care (particularly for their playmates) and they enter into "relationships" of many kinds. The neglect of care and bonds on the part of Piaget and Kohlberg had nothing to do with gender and much to do with Kantianism and with the fact that most of the available subjects seem to have been boys, as a consequence of which those investigators hardly addressed peculiarly feminine concerns such as those of infant care and male dominance. It is not that boys inevitably develop an "ethic of justice" and girls an "ethic of care". There is no morality at all without both fairness and concern for others.

Contrary to cognitive-developmental theory, social-learning theory claims that morality is purely a matter of social behavior: That we learn to observe some moral code or other in much the same way as we learn anything else, namely through conditioning, imitation, and precept. We "internalize" (make ours) a socially accepted norm of conduct when we learn to comply with it nearly automatically and feel that it is wrong for anyone to break it. Consequently moral development would be a

gradual process steered by the social environment rather than by internal factors. Consequently there would be no qualitatively different stages of moral development.

The oldest argument for social-learning theory is found in Plato's *Theaetetus* 73, where Socrates says of a man that "His condition, which has been that of a slave from his youth upwards, has deprived him of growth and uprightness and independence; dangers and fears, which were too much for his truth and honesty, came upon him in early years, when the tenderness of youth was unequal to them, and he has been driven into crooked ways; from the first he has practiced deception and retaliation, and has become stunted and warped". (By the way, this stunning view contrasts with Socrates's cognitive nativism.)

The strongest argument for this view is that, after all, moral behavior is part of social behavior, which can only be learned in society. The acquisition of a moral conscience is part of the socialization process, and its deterioration is a concomitant of social degradation. The weak points of the theory, or rather hypothesis, are (*a*) the denial of developmental stages and the naive environmentalism peculiar to behaviorism, and (*b*) the inability to account for moral autonomy, in particular disconformism (especially acute in adolescence). The emphasis on extrinsic rewards ignores the experimental findings that (*a*) a person may retain her moral integrity even in the absence of reinforcements; (*b*) exclusive reliance on external incentives may undermine the internal ones (Lepper, Greene & Nisbett 1973); (*c*) making certain activities — such as helping, learning, and even playing — means to an end can likewise undermine internal incentives (Lepper, Sagotsky, Dafoe & Greene 1982); and (*d*) reasoning with the child and appealing to his sense of fairness and empathy is more effective than promising her material rewards or threatening punishment (Grousec & Dix 1986).

Clearly, then, each of the two main rivals in current moral psychology holds a grain of truth. In particular, whereas the cognitive-developmental school focuses on cross-cultural or universal features, the social-learning school attempts to account for the relativity of moral codes. Hence the two schools are in some regards mutually complementary rather than contradictory. Therefore it should be possible to unite them into a single theory. But such a synthesis ought to include three important components absent from the two rivals: (*a*) motivation and the moral feelings (such as empathy and shame) and reasonings (particularly those sparked off by the question 'What if everybody were to do

the same?") that drive much of our moral behavior; (*b*) the neural "substrate" (organs) of such feelings and reasonings (and the moral deficits caused by their malfunction or destruction); and (*c*) the ideology accompanying every socially accepted moral code and every system of formal education.

The proposed synthesis can be summarized as follows. (i) Moral development is an aspect of biosocial development. (ii) The latter is nothing but the maturation of the entire body, in particular the central nervous system, in response to both endogenous (particularly genetic) and exogenous (mainly social) stimuli. (iii) Moral development is at the same time emotional (honing or blunting of moral sensibility), cognitive (internalization or criticism of moral norms), and behavioral (adoption or rejection of moral behavior patterns). (iv) Moral development does not proceed gradually but by qualitative leaps which correspond to massive reorganizations of the plastic regions of the brain. (v) Being a biosocial process, moral development can be steered (for better or worse) by the consistent application of stimuli of various kinds, in particular chemical and social — as suggested by the deleterious moral effects of drug addiction and the uplifting moral effects of model imitation. (vi) By the time she has reached adolescence, the normal human being has acquired a conscience that allows her to steer herself within bounds, and even to rebel occasionally against the prevailing moral conventions. (vii) Since conscience is consciousness of moral feelings and reasonings, the organ of morality is likely to be a comparatively large portion of the corticolimbic system. (viii) Because morals are learned they can be taught, particularly by example and by appealing to moral feelings, reasonings, and experiences. (See e.g. Chazan Ed. 1985.) And because the organ of morality is largely plastic, it is possible to reeducate moral deviants. (ix) The individual moral philosopher can do very little beyond his circle of relatives, friends and readers. On the other hand governments can lead millions of people to either moral uplifting or moral degradation, both directly through public education, and indirectly through the design and implementation of national projects engaging most of the population. A constructive project can inspire cooperation and selflessness, a destructive one will induce antisocial behavior. An honest government will teach honesty, a corrupt one corruption. (x) Given the overriding function of government in modern society, and the fact that every form of government is guided by some ideology or other, it is naive if not deceptive to

overlook the ideological component of moral education both direct (or formal) and indirect (by example).

1.2 *Origin and Breakdown of Norms*

Since moral norms are contained in the collection of rules of social behavior, and since some of the latter are society-specific, it is reasonable to suppose that some norms differ from society to society and change over time in every society. Just think of the recent changes in sexual morality and in public attitudes towards the arms race and environmental pollution.

It is the task of the science of morals — in particular the psychology, sociology and history of morals — to identify the cross-cultural moral invariants as well as the intercultural moral differences; to trace the changes in morals, if possible from prehistoric times on; and to offer explanations of such differences and changes in terms of environmental, biological, psychological, and social (in particular economic, political and cultural) terms. Regrettably the science of morals, in particular the history of morals, is underdeveloped. To be sure there are plenty of studies on the history of ethical doctrines; but since these have been mostly pulpit or armchair cogitations, they tell us next to nothing about actual moral behavior in real society.

The problem of the origin, enforcement and withering of moral norms may be approached in a number of ways — preferably in several. First there is the *historical* approach, which attempts to trace the natural and social evolution of norms. A sensational result of this approach is the recent finding of fossil remains of hominids and primitive human beings who attained adulthood in spite of being severely crippled. This finding has been taken as circumstantial evidence for the hypothesis that our remote ancestors, far from being selfish and cruel — as Hobbes and his followers supposed — were capable of kindness. As for morals in historic times, there are plenty of pertinent documents. However, the value of such documents must not be overrated, because they begin to appear long after the norm in question has been adopted, and they may continue to bear witness to the existence of the norm even long after the norm is no longer observed.

The historical approach is most fruitful when combined with the anthropological and sociopsychological perspectives. For instance, the study of primitive societies and their transition to agricultural societies

has led Opp (1982) to conjecture that the evolutionary emergence of norms goes through several stages, among them (*a*) the initiation of new behavior patterns that prove to be successful — or at least are believed to be convenient for some; (*b*) the explicit formulation of the corresponding normative statements; (*c*) the widespread acceptance and internalization of norms, and (*d*) the setting up of formal mechanisms for enforcing the norms. What begins as a spontaneous new behavior pattern, perhaps tried out by a single individual, may spread and become the (moral or legal) law of the land. Such combination of invention, trial, imitation, diffusion, convention, and sanction, is peculiar to moral and legal norms in contradistinction to natural laws.

Second there is the *observational* approach adopted by psychologists, anthropologists and social psychologists, who try to find out how norms emerge in the behavior of children, and how they are enforced or relaxed in primitive tribes, street corner gangs, and other social groups. This approach requires long follow-up studies in the case of individuals, and decades of observation of societies in transition. A defect of this approach is that the informants may be unreliable if only because, unknown to them, some norms may be in the process of emerging or of becoming extinct.

Third there is the *experimental* method: A social group is artificially set up by the experimenter, who assigns its members a task requiring interactions leading to moral conflicts. The major problem with this approach is that the groups are artificial and ephemeral, usually composed of individuals who are strangers to one another; moreover the groups are detached from society at large and they are usually assigned tasks that are quite different from those they confront in real life. Fortunately these are small hurdles in the case of children invited to play games, for usually they get together quickly, and the experimenter does not have to rely on their verbal reports. In fact direct observation suffices to find out, say, how the children divide loot and argue among themselves about the fairness or unfairness of the distribution. (See Moessinger 1975.)

Fourth, there is the *sociobiological* speculation, which attempts to trace the origin of norms to their biological value, genetic "encoding", and diffusion throughout a genetic pool. Such speculation might suggest how certain universal moral norms arise, but cannot possibly account for any norm bound to a particular place and time. Sociobiological speculation is fun because it produces the illusion of explaining every-

thing, in particular egoism and altruism: the former for favoring individual survival, the latter for fostering kin survival. Besides being extremely accommodating, sociobiological speculation overlooks moral feelings and moral dogmas, and it does not account for moral criticism or even for plain conversation, which — unlike the shouting of orders — requires mutual respect and therefore a modicum of social equality. In short, whatever the merits of insect sociobiology, human sociobiology does not have many besides the good intention of supplying a scientific basis for social science and ethics. (More in Kitcher 1985.)

Fifth, there is the fashionable *game-theoretic* approach, often combined with sociobiological speculation concerning evolutionary "strategies". Its proponents seek to explain the adoption or breakdown of norms in terms of (positive or negative) payoffs in the manner of the Prisoner's Dilemma (single shot or iterated). An advantage of this approach is that the "norms game" can be simulated on a computer (Axelrod 1984). But this is also a shortcoming, for such simulation (*a*) ignores feelings and (*b*) it can only process the premises — in particular the payoff "data", actually invented — contained in the program: it cannot replace actual experiment or even observation.

Besides, a two-person game is an oversimplified model of any real social group, even of a childless married couple, for it overlooks the interpersonal bonds as well as the many relations that each individual has with third persons. Worse, it is centered on (short term or long term) self-interest, with total disregard for moral feelings, duties, and conventions. The players are supposed to be selfish and cool strategists — i.e. bastards rather than virtuous or even normal people. Finally, normative theories, such as game theory, cannot explain facts, such as the emergence or breakdown of moral codes, unless it be assumed that ours is the most rational of all possible worlds. To explain facts one needs theories including specific laws, and these are conspicuously absent from game-theoretic models.

Sixth and last, there is *psychoanalytic* myth making. In particular, Freud (1913) speculated that morality was originally indistinguishable from religion and sociality: All three would originate in infantile sexuality and, moreover, in the so-called father-complex and the associated fear of castration. Morality would boil down to the mastering of the Oedipus complex. Since this complex is imaginary, the psychoanalytic fantasy is just one more modern myth. (Recall Vol. 7, Ch. 3, Sect. 5.1.) Worse, it is an onerous myth, for it does not allow the clinical

psychologist or the teacher to identify, let alone correct, moral deviations.

In sum, only half of the above mentioned approaches seem promising, namely the historical, observational, and experimental ones. They should be combined and practiced in the light of the hypothesis that morals have multiple roots, rather than pursued independently from one another or on the assumption that morality has a single source.

The practical utility of such studies should be obvious at a time like ours, when humankind is going through the most severe moral crisis in its history, when traditional values and virtues, whether good or bad, are being rejected without being replaced. This moral crisis is a result and in turn a minor cause of such deep social problems as overindustrialization, overpopulation, overurbanization, militarization, power abuse, and secularization. (It is not that morality is impossible without religion, but that the traditional moralities, most of them based on religious dogmas, have yet to be replaced with moralities compatible with contemporary science and technology.)

Since the current moral crisis is only one component of the total crisis that threatens the survival of humankind, only a systemic approach to that megaproblem could work. (Systems of problems have only systemic solutions.) This is not an excuse for postponing the building of a new morality up until the social problems have been solved. On the contrary, we need a new moral perspective to grapple with those problems. Only, this new morality, to be effective, cannot be the outcome of an academic exercise best left to moral philosophers working in sound-proof rooms. It must come from the combined effort of concerned scientists, technologists, scholars, educators, and men of action.

1.3 *Summary*

Moral norms are learned not inborn. They are learned along a complex course of physical (in particular cerebral) maturation and social intercourse. To understand this process one should study its various aspects at different levels. In particular, one should study its emotional, cognitive and behavioral aspects both in the individual and in her relations with her groups. Any unifactorial approach to moral development — such as the cognitive-developmental or the social-learning ones — is bound to produce some results while failing to understand the process in its full complexity. What is needed is an integrated or systemic approach to moral development.

Morality differs from one society to the next, and from one epoch to the next, even though all moralities proper share some fundamental principles corresponding to human nature. At least half a dozen different approaches to the study of the emergence and breakdown of moral norms have been tried. Only three of them — the historical, observational, and experimental — have produced tangible results, even though every one of them has its snares. The other approaches are far too speculative and simplistic. The severe moral crisis that humankind is currently going through cannot be understood, much less overcome, with the help of any such speculative and simplistic approaches. Being but one aspect of a global crisis, it calls for a multidisciplinary approach.

2. THE HUMAN CONDITION

2.1 *Human Nature*

Although no two human beings, not even "identical" twins, are strictly identical, we are all alike in most respects: This is why we all belong to the same biospecies. This platitude bears repetition in view of the persistence of extreme axiological and ethical sociologism. This view entails (*a*) radical *relativism*, or the denial that there are any universal human values and norms; and (*b*) axiological and moral *pessimism*, or the view that we cannot reasonably hope for valuational and moral reforms before society has been reformed. If there is such thing as human nature, however variable, then it must be possible to find cross-cultural values and norms, and to claim their priority in our quest for a good society.

All humans have a common ancestry, whence we have similar anatomical and physiological (in particular mental) features. Therefore we all have the same visceral and psychological needs — whence we all share the primary and secondary values. We all use and occasionally even manufacture artifacts. We all experience emotions, in particular moral feelings. Normally we all delight in learning and are naturally active. And we are all in need of help and normally enjoy company. All of these features together make us remarkably conflictive as well as cooperative beings.

Consider briefly two characteristically human tensions: those between passion and reason, and between selfishness and altruism. According to some (e.g. Hume and Pareto) reason is the slave of passion, whereas to

others (e.g. Zeno the Stoic and Kant) reason must subdue passion. Each thesis is only partially true. In fact, we can often control emotion, and just as often use reason to satisfy passion. In particular, passion for a cause can fuel research and action, and analysis of feelings can check and even extinguish impulses. Developing into a mature person is in part learning to harmonize passion and reason: to use the former as a means for the latter and conversely. This learning is possible because of the strong anatomical links and physiological interactions between the cortical and limbic systems, and the interactions between these and the endocrine system.

As for the second conflict, our common needs make us all half-selfish and half-altruistic. As Dr Jekyll put it, "all human beings, as we meet them, are commingled out of good and evil" (Stevenson 1886). The evolutionary explanation of this mixture of good and evil is that those who were purely selfless (prosocial) did not take proper care of themselves and therefore did not live long enough to leave offspring; whereas those who were purely selfish (antisocial) either got no care from others when in need, or were eliminated by their antagonists. Shorter: To survive we must be minimally selfish and minimally altruistic. Even a few economists (e.g. Robinson 1962 p. 10) know this.

These and other conflicts, whether internal or inter-personal, make human life interesting, difficult, and tragic. Interesting and difficult because they pose tough problems, particularly of the moral kind. Tragic because some such problems are insoluble: Think of failure, estrangement, unrequited love, natural calamity, or death. Tragedy is part of the human condition. However, we can prevent much unnecessary tragedy, such as poverty, war, and all the miseries they cause. And this is what morals are or ought to be all about, namely the minimization of avoidable tragedy and the multiplication of opportunities for happiness.

Notwithstanding the common knowledge of the basic similarity of all human beings, hence of their basic needs and values, as well as of their basic conflicts, the very concept of human nature has been under heavy attack. It has been criticized on two major counts. One is that humankind has never stopped evolving, the other is that man is largely artifactual. However, the first criticism only refutes the simplistic thesis that human nature is constant: it does not establish the thesis that we have risen above nature. Of course human nature is not invariable — nor is elephantine or falconine nature. Still, we are animals belonging to the same biospecies.

The second criticism is more to the point for, far from being only the creatures of our genes and our natural environment, we are largely shaped by our social milieu — which we in turn alter through work. Man is the self-made artifact. In other words, the human condition is half-natural and half-artificial. Therefore the idea that man has at least originally been in a "state of nature" (as Hobbes and Rousseau believed) is false. So is the contemporary version of this thesis, namely human sociobiology.

Human sociobiology (Wilson 1978, Lumsden & Wilson 1981) is a variant of biological reductionism and, in particular, geneticism — i.e. the view that, in the main, human behavior is predetermined by the genome. Most social scientists have ignored or rejected this view for at least two reasons. Firstly, although no two persons are identical, almost any social role can be played by a number of individuals, to the point that in certain social groups, such as armies and big corporations, individuals are treated as expendable. Secondly, although all economic, political and cultural actions are instances of animal behavior, they differ across societies and from one historical period to another, without any appreciable accompanying genic changes. (Thus nobody would attribute the American Civil War to a macromutation — nor would hold that the event caused a massive genic change.) Genes make certain human actions possible and others impossible, but they are impotent without the assistance of the (natural and social) environment. (Recall Sect. 3.1.) Therefore, although ethics should take biology into account, it cannot be biologicized anymore than it can be psychologicized or sociologicized. (For further criticisms see Lewontin, Rose & Kamin 1984, and Kitcher 1985.) Finally, the sociobiological thesis that dominance and status are always positively correlated with reproductive success or fertility may be true of baboons and a few underdeveloped human societies but it is false of civilized societies. In fact the latter exhibit an almost inverse correlation between social (in particular economic and cultural) rank and fertility (e.g. Vining 1986).

In short, there is such thing as human nature because all humans, regardless of their individual differences, share a huge number of properties, among them those of neural and social plasticity. Were it not for such commonalities it would make no sense to speak of the unity of the human species. And were it not for the ability to change both mentally and in our social behavior, we would not be humans but hominids or even more primitive primates. Shorter: human nature is for real but it is eminently variable.

2.2 *Competition*

It would seem obvious that, self-preservation being the *summum bonum* of all animals, they are naturally selfish. And, given the scarcity of some resources, it would follow that they are naturally competitive and occasionally even aggressive. In particular, murder and theft, exploitation and oppression, war and conquest would come naturally to man — unless checked by weakness or by fear of retribution.

All this is in fact what Hobbes and his heirs, from the social Darwinists and Freud down to some ethologists (e.g. Lorenz 1970) and anthropologists (e.g. Tiger & Fox 1971, Chagnon 1988) have been saying about man. Nietzsche thought along similar lines and so did the fascist and nazi ideologists — who, incidentally, admired Nietzsche's unscrupulous Superman. Thus Mussolini (1932) wrote that the fascist repudiates pacifism and "looks on life as duty, ascent, conquest" — yet he despaired of ever converting the peaceful Italian peasant into a war hero.

It is worthwhile to recall Hobbes's social philosophy for, if accepted, it entails that morality is either pure cant or nothing but a clever device for social control, only more subtle than the jail or the firing squad. Hobbes's social philosophy can be condensed into the slogan "Everyone for himself and the State for all". This principle may be spelled out as follows. Firstly, we are naturally asocial or even antisocial: "men have no pleasure (but on the contrary a great deale of griefe) in keeping company, where there is no power able to overawe them all" (Hobbes 1651 p. 64). Secondly, men are naturally competitive and even aggressive: "every man is Enemy to every man" (ibid.). Thirdly, there is only one way to prevent the mutual destruction of individuals, namely by having them strike mutually convenient deals protected by an omnipotent State. Fourthly, the State, by imposing law and order, is convenient to all because it gives security; in particular it ensures the right to life and to private property. Fifthly, and consequently, we must support a strong (i.e. merciless) government that will guarantee the "social contract", which is the invisible umbrella protecting every person-to-person contract.

The social sciences have amply refuted Hobbes's pessimistic psychology and anthropology, thus seriously undermining his political and moral philosophies. Firstly, developmental and social psychologists know that human beings are sociable from birth, and that they acquire

social skills as they develop. (One wonders whether Hobbes or any of his followers have ever raised any children.) Secondly, first a number of travelers and colonizers, and later on anthropologists, have refuted Hobbes's contention that "the condition of meer Nature" is that of "Warre of every man against every man". Most of the warlike tribesman have been found to live in internally peaceful communities, usually sharing equally whatever they can get hold of. All such primitive societies are stateless. And, though a few of them are warlike, most are not — particularly if they are not supplied with guns by the civilized. As Kropotkin (1902 p. 88) said, "Unbridled individualism is a modern growth, but it is not characteristic of primitive mankind".

Thirdly, social psychologists have found that aggression is not an automatic response to provocation: Whether or not a person responds aggressively to a provocation depends on whether or not he perceives that provocation as hostile. They have also found that aggression is far more frequent among socially uncouth and verbally unskilled persons than among others. Finally, we do not need much scientific research to establish that there are such things as sympathy, friendship, and love, as well as empathy, tolerance, and caregiving. A moral philosopher who ignores them not only distorts the truth about the objective grounds of morality: he also becomes a tool of exploiters, oppressors, and warmongers.

What holds for people holds, *mutatis mutandis*, for other animals: competition and aggression are limited to meeting basic needs. Thus biologists know that competition is often avoided by relocation, i.e. by moving to a new territory with similar resources. (In the case of humans relocation takes the forms of migration or job change.) Ethologists distinguish between territoriality (defense of the means of subsistence) and aggression. They also distinguish intraspecific from interspecific aggression. Sexual competition is an instance of the former, whereas predation exemplifies the latter. But sexual competition is limited to brief periods and is never deadly; and predation ceases upon need satisfaction. (Even in times of drought predators and their potential prey are seen to share waterholes.)

All social animals are born with mechanisms that contain intraspecific aggression. For example dogs, unless trained to behave otherwise, do not fight to the death: usually the defeated animal signals submission. With regard to gregarious animals of the same species, we must distinguish intra-group from between-group aggression. The former is

usually contained when existent at all, for otherwise it would cause group breakdown. Between-group intraspecific aggression seems to be practised only by human beings. Among other animals the rule is tolerance among conspecifics.

Ethologists know also that, whether or not an animal is aggressive, depends on its lifestyle. It will be aggressive only if it makes a living by capturing live prey — and even so just when hungry or to feed its young. For example, the Siamese fighting fish is a predator: when facing a provocative stimulus it is likely to adopt an aggressive or a defensive stand; on the other hand goldfish, being scavengers, are normally peaceful. (See Otis & Cerf 1963.) Finally, we all know that domestic animals, particularly dogs, can be trained to become either aggressive or friendly toward strangers.

In short, the claim that humans are basically antisocial is a myth. To be sure all animals are competitive in some regards and within bounds. And, unlike most other animals, human beings can oppress and murder. But at the same time humans *need* not resort to violence among themselves, for they can best meet their needs and wants through work and mutual help guided by reason. (In particular, war is not in our genes and nowadays only fanatics and weapons manufacturers benefit from it.) This is not to say that it will ever be possible to eliminate all human conflicts: competition is natural and, within bounds, healthy. The point is not to eliminate conflict but to circumscribe it and to resolve it through fair and intelligent negotiation rather than through violence.

2.3 *Cooperation*

Cooperation or mutual help is as much a fact of animal life as is competition. This fact could not be seen by the early evolutionary biologists or by their contemporaries in the social sciences, who only saw struggle everywhere. A great merit of Kropotkin's (1902) was to accumulate evidence for, and to spread, the hypothesis that mutual help was just as common as competition in the animal world. (His mistake was to believe that, whereas competition can lead either to progress or to regress, mutual help leads automatically to progress. Actually either can lead to either: the outcome depends largely on the circumstances and, in the case of the higher animals, on the goals as well.) Mutualistic behavior, also called 'reciprocal altruism', is no longer a romantic dream: it is generally admitted by zoologists, ethologists and socio-biologists. (See e.g. Maynard Smith Ed. 1982 Ch. 6.)

Some biologists, in particular Hamilton (1964), have argued that mutualistic behavior is in the genes because natural selection favored those individuals that maximized the survival chances of their kin even at the expense of their own welfare. However, geneticists have yet to identify the putative mutualistic gene(s), and the hypothesis of kin or group selection is still *sub judice*. As for the game-theoretic models, according to which cooperation is an effective strategy in the "game" of life (e.g. Axelrod 1984), they are unconvincing because they make no use of any biological laws. (Recall Sect. 3.2.)

Whichever the final verdict on the hypothesis of kin selection may be for non-human animals, the evidence regarding humans is ambiguous. On the one hand it is true that kinship bonds are very strong, particularly in traditional societies. On the other hand sociologists have found that most acts of violence in industrialized societies, such as wife beating, child abuse, rape, and even murder, are committed against relatives or acquaintances. We also know that the level of violence varies from one society to another. (Compare Miami with Stockholm.) In conclusion, the hypothesis that prosocial behavior "is in the genes" is yet to be confirmed with regard to human beings. What we do know is that we are all born sociable, and that both prosocial and antisocial behavior can be reinforced or discouraged.

We also know that normal human beings (*a*) like to play and work together, loners being exceptional and not well looked on by the majority, and (*b*) like to help others and need help from others. Mutual help is particularly important in learning, especially in learning moral norms: We all learn from one another (elders and peers), and hope that what one of us does not know another may find out — this being why we keep asking for information and advice.

Competition alone would not have brought us to the present level of cultural development, for the learning process is essentially cooperative: We learn not only by ourselves but also from one another. It is most likely that the human brain coevolved with society, for the more complex types of social behavior, particularly team work and defense, demand a superior intelligence; and in turn the cultivation of intelligence leads to inventing or perfecting new and more efficient forms of cooperation.

We submit then that neither competition nor cooperation leads by itself to progress, whether biological or social: the former may lead to destruction, the latter to stagnation. We submit that social (in particular moral) progress is best achieved by *combining competition with co-*

operation. To be efficient, each must moderate the other: both violent competition and selfless cooperation threaten the survival of the individual as well as the integrity of the group. A major function of a good moral code should therefore be to restrain competition and stimulate cooperation. See Figure 5.1. We shall come back to this matter in Ch. 10, Sect. 2.4 and Ch. 11, Sect. 4.

Given that the components of any successful social group cooperate in some respects with one another even while they compete in others, it is distressing to find that social scientists are making increasing use of game theory, in particular of the Prisoner's Dilemma. This is distressing for the following reasons. Firstly, the case of two prisoners held incommunicado is hardly a realistic microsociety: in real life information flows are constituents of the mortar that holds society together. Secondly, the assumption that each of the two prisoners behaves egoistically ("rationally") overlooks their previous commitments, their moral feelings and moral codes, their fear of revenge, and their hope of resuming cooperation after leaving prison. Thirdly, since the entries (utilities) in the payoff matrices are assigned arbitrarily by the game theorist, he can "prove" anything he wants; in fact, whereas some game theorists have "proved" that defection (betrayal) pays, others have "proved" that cooperation does. (For more on utility theory and its applications see Ch. 3, Sect. 3.2.)

Even more distressing is the revival of the doctrine that "Violence [. . .] may be the principal driving force in the evolution of culture"

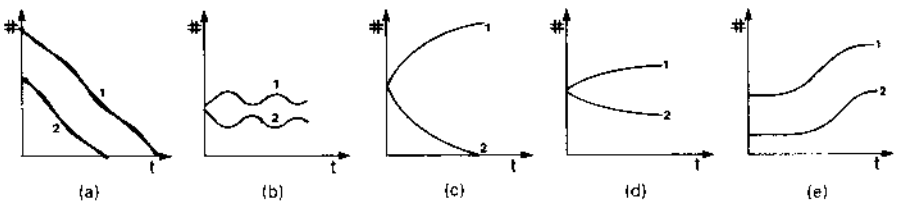


Fig. 5.1. Predation, competition and cooperation in nature and in society. (*a*) Unchecked rivalry: The two antagonists fight to the death. (*b*) Moderate predation: The numbers of prey (1) and predator (2) oscillate out of phase. (*c*) Unchecked competition for the same ecological niche: group 1 survives and overpopulates at the expense of 2, which becomes extinct. (*d*) Checked competition without cooperation: 1 and 2 coexist but 1 fares better than 2. (*e*) Cooperation combined with competition: 1 and 2 coexist and prosper by checking and helping one another.

(Chagnon 1988 p. 985). It is understandable that an anthropologist specialized in studying a bellicose tribe such as the Yanomamö, a sociologist expert in class warfare, an economist focusing on business rivalry, or a military historian, should form such a one-sided and bleak impression of the human group. But this impression is clearly false, for without a modicum of cooperation there would be no social groups. It is also dangerous, for the belief in the inevitability of violent confrontation facilitates conflicts of this kind and weakens the will to avoid or resolve them through negotiation or arbitration.

2.4 *Summary*

There is no question but that all animals are endowed with self-preservation mechanisms, some inherited, others learned. However, self-interest is not always conducive to antisocial behavior: in many circumstances it leads to cooperation. If an animal needs help in order to stay alive or raise its young, it will engage in mutual help, as in nest building and defense.

Cooperation is particularly conspicuous among social animals. In fact without cooperation — albeit mostly unwitting — there would be no societies at all. This is especially the case of human societies, whether they are primitive and surrounded by a hostile natural environment, or advanced and characterized by an extreme division of labor.

Human beings are at the same time competitive and cooperative. To give free rein to competition is to invite social disintegration, and to demand pure altruism is to court stagnation. The best moral and social policy is to combine competition with cooperation, i.e. to observe Norm 4.6 in Ch. 4, Sect. 1.2: *Enjoy life and help live.*

3. MORALITY CHANGES

3.1 *Evolution of Mores and Morals*

The human condition is not constant. Neuronal plasticity makes for mental, behavioral and social plasticity. In particular, values and norms change along with society, especially along with the cultural subsystem, of which values and norms are a part. Some norms are altered, others replaced; some are reinforced, others relaxed. Such changes may come about either because the values or norms have become obsolete, or because they are "perceived" as hurting the interests of some social

group or, finally, because the society has entered a period of decadence and breakdown.

In civilized societies before the American Revolution (1776) and the French Revolution (1789) there were duties and privileges — sometimes conquered, at other times purchased — but there were no universal rights. However, in the *ancien régime*, at least in theory, those enjoying the most privileges and means had the most obligations toward the underprivileged, particularly widows and orphans: *Noblesse oblige*. But they enjoyed privileges which we now regard as outrageous, such as the *jus primae noctis* and the right to live in luxury without working.

In a political democracy there are rights and duties but, at least in theory, no privileges except for the very young, the very old, and the handicapped. Still, rights are largely confined to the political sphere and they did not come overnight and without struggles. For example, voting started as a privilege, it only became a universal right in the course of our century, and is now both a right and a duty (sometimes a legal one) in all democracies. Private property too began as a privilege, possibly about five millennia ago, and eventually it became a right, though one that is limited by law and in fact restricted to a minority of the world population. On the other hand procreation, probably considered as a duty (sanctioned by fertility rites) when the human population was scarce, is now a right. But, like the right to own land, that of procreation will soon have to be drastically curtailed all over the planet to ensure the survival of humankind: See Ch. 11, Sect. 2.

Any drastic change in lifestyle, particularly if it occurs across an important social group, is bound to be accompanied, followed or preceded by profound moral changes. For example, the recruit to industry from rural communities, particularly from tribal ones, comes with a moral code that "may contain no rules governing relations between employer and employed, buyer and seller, or workman and his mates [. . .] The clash of moral codes is painful" and it only adds to the difficult problems of adjustment to industrial life (Lewis 1955 pp. 195—196).

On the positive side we find, for example, the sudden availability of safe and comparatively inexpensive contraceptives from the mid 1960s on, which put an end to much misery, fear and hypocrisy — though at the same time it encouraged promiscuousness. An even more dramatic case was the refinement in moral sensibility which helped abolish slavery, serfdom and child labor. It would be naive to attribute such

social and moral progress to economic causes alone, for the exploitation of slaves, serfs and children was very profitable. Likewise, the more humane treatment of criminals was economically less advantageous than their quick disposal. We must then admit that occasionally there is such a thing as moral progress, and that intellectuals and artists can do something to promote it — or to block it.

However, moral progress is neither automatic nor continuous: witness the horrors of world wars, extermination camps, and labor camps. Some contemporary societies have advanced morally and socially in some respects, e.g. in the treatment of ethnic minorities, women and children, while at the same time sinking into aggressiveness and corruption. This proves that there are no *laws* of moral evolution anymore than there are historical laws. In particular we are not bound to go either uphill or downhill in the field of morality. In each generation we become what we have chosen to become, and our choices are determined by our backgrounds, aspirations, means, and opportunities.

Our children and students become to some extent what we stimulate and allow them to become. On the one hand, if the accent at home, school and workplace is on obedience, discipline, and duty, a large mass of conformists and, by reaction, a handful of rebels will result. If on the other hand instant gratification, rights without duties, and unrestricted individualism are encouraged, antisocial individuals will result. If we wish moral progress we must learn to steer a middle course between authoritarianism (sheer dont's) and permissiveness (sheer may's), between the grim teachings of Calvin and Kant and the voluptous *Playboy* philosophy of life. We must learn to link rights to duties, enjoyment to discipline, creativity to discipline. We must learn to breed *us* generations instead of either *me* or *thou* generations.

To achieve this goal we must remember that moral education, like the learning of a skill, is both formal and informal: by example and exploration, by precept and argument, through understanding and emotion. Children, from about two years old, can be taught certain moral rules, particularly norms concerning fairness and mutual help. Somewhat older children can be engaged in argument about right and wrong actions, for they all have a keen sense of justice and they can readily empathize with their peers. Another important tool of moral education is play. A few games, such as playing house, are cooperative, but most are competitive: their "object" (goal) is to win. Still, whereas some of the latter (e.g. cops and robbers) can be aggressive, others (e.g.

tennis) are not. Still others, such as soccer, combine team work with inter-team competition and are subject to rules of fair play, whence they should be promoted. However, these and other sports become distorted and morally corrupt when commercialized: for the sake of public health and morals all sports should remain amateur.

In conclusion, rights and duties, as well as the accompanying moral norms, evolve with the societies where they are invented and which adopt or discard them. In other words, the evolution of morals, like that of the law, is an aspect of social evolution. This platitude should not be construed as a declaration of radical moral and legal relativism, according to which no moral or legal code is better than any other. There can be little doubt that some moral norms, e.g. "My country right or wrong", and some legal norms, e.g. "Theft is punishable under all circumstances", are bad and are being increasingly recognized as such. Nor is there room to doubt, except among the most backward-looking, that the *Déclaration des droits de l'homme et du citoyen* of 1789, and even more so the United Nations's Universal Declaration of Human Rights of 1948, have been moral and social achievements. So, moral progress, though not automatic or continuous, is possible. Hence it makes sense to ask for more of it, in particular to work for the world-wide respect for the 1948 charter of human rights as well as for the adoption of a Universal Declaration of Human Duties centered on mutual help both among individuals and among nations.

3.2 *The Current Moral Crisis*

Since the end of World War II the industrialized world has experienced two parallel but mutually opposed moral currents: one progressive (prosocial), the other regressive (antisocial). As mentioned in the preceding Section, a more honest attitude toward sex and a greater concern for the underdog are part of the former. But there are also clear signs of moral decline, such as a more ferocious individualism and a decline of the family, which used to be the main source of moral upbringing and support.

The most formidable obstacles to sustained moral progress are poverty and war. It is unrealistic as well as unfair to ask the jobless, the homeless or the hungry to observe any moral or legal norm other than that which recommends the mutual help among people in the same boat. And it is hard to expect anything but cynicism from people embroiled in a war that they have not initiated, or who live under the

nuclear umbrella. Both the destitute and those who expect their lives to terminate at any moment are likely to feel that life has no "meaning" (purpose). No wonder, for they have not been consulted or given the opportunity to choose their own lifestyles. The only effective way to counteract such moral cynicism and despair is to rebuild society in such a manner that everyone may enjoy life.

Intellectuals, in particular moral and social philosophers, have had their share both in moral progress and in moral decline. Those who have written or campaigned for more enlightened and responsible moral attitudes, or for more advanced social structures, have contributed to the former. On the other hand those who have washed their hands of substantive moral issues, claiming that philosophers can only analyze moral utterings, but should abstain from moralizing, have been silent accomplices of moral decline. Finally, those who have exaggerated moral relativism or moral individualism, as well as those who have exaggerated moral absolutism or moral collectivism, have contributed to our current moral plight.

The two greatest philosophical enemies of moral progress are moral individualism — in particular nihilism and hedonism — and holism — in particular the view that all rights are vested in the state and all duties in the individual. Individualism involves the thesis of full personal autonomy and it makes people egoists like cats. Holism involves the thesis of full personal heteronomy and it makes people submissive like dogs. (More in Ch. 7, Sect. 1.7.)

The main intellectual enemy of moral progress in the West is moral individualism, which has grown enormously in recent decades despite the concomitant decline in opportunities to engage in private enterprise. (Philosophical individualism is not the same as respect for the individual: it is the defense of rights without duties.) The rise of moral individualism is not just the belated triumph of the ideology of greed. It is also a result of such social changes as urbanization (and the concomitant loss of the sense of belonging in a community) and the expansion of political rights, along with an easier access to education. It is also a result of such technological innovations as the automobile, the telephone, radio, and television, which have decreased the need for face to face contacts.

Even the computer is contributing to moral decline, though not for facilitating individualism but, on the contrary, for promoting our submission to an omnipotent and invisible Leviathan. In fact, the

computer is increasingly taking both the credit and the blame for whatever goes on in a social megasystem. Although, when linked together and made accessible to individuals, computers help us solve a number of cognitive problems, in many cases they have become barriers between individuals. Where formerly one could tap the door of a supervisor or manager, and bang the door of a government agency, nowadays one is stopped by a clerk, or even a screen, telling us curtly: *Computator dixit.* See Figure 5.2. Not only this, but because computers have no moral feelings they cannot be compassionate and charitable: they are moral morons. As well, unless the computer programs are frequently updated, they become bastions of conservatism. In particular, some of the computer programs utilized in government agencies may come up with bad decisions based on instructions involving morally objectionable principles, such as "In matters of taxation always favor the rich", "In matters of employment always favor party members", or "In case of doubt shoot".

What can be done to favor moral progress? Preaching, whether from the pulpit or from the chair, is hardly effective these days. The only efficient moralizing actions are setting a personal example and actively participating in community endeavors (non-governmental non-profit organizations) as well as in politics. In modern society a moral person is not just a harmless nobody but someone who works for good causes together with similarly motivated people.

3.3 *Summary*

Morals change along with societies. They do not change automatically

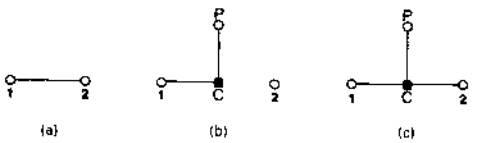


Fig. 5.2. Moral responsibility and the computer. (*a*) Yesterday: face to face interaction between persons 1 and 2. (*b*) Today: the computer *C* as a screen between persons and as a conveyor of instructions given by a third person, the programmer *P* (in turn a tool of the decision maker). (*c*) Tomorrow: individuals interact with one another and with the programmer through the computer.

or always for the better. Rather, they change along with lifestyles, which nowadays are largely shaped by industrial innovation.

The second half of the 20th century has seen two mutually opposite currents of moral change, one progressive, the other regressive. The former is obvious in the movements for human rights and environmental protection. Moral decline is obvious in the rise of individualism and corruption, as well as in the decline of the family and community ties.

Moral activism is inefficient when limited to preaching, but powerful when inserted in community and political activism.

CHAPTER 6

SOME MORAL ISSUES

In this chapter we grapple with some key contemporary moral issues. We do so in the light of the principles and definitions formulated in the two preceding chapters. In fact, this chapter may be regarded as a collection of examples aiming at elucidating and testing those postulates, norms, and conventions. However, as with all applications, we shall find it necessary to add a few assumptions and definitions.

Every selection involves an exclusion. In choosing some of the most important moral problems of our time we have ignored or minimized others which, though more hotly debated, are not central in our view. This is the case with abortion, animal rights, drug addiction, pornography, the treatment of the insane, street crime, and many others. To be sure these *are* real serious problems, but they pale by comparison with those raised by the arms race, political expansionism, racial discrimination, social injustice, environmental pollution, and underdevelopment. The importance of a moral problem is not measured by the publicity given it by the communications media or even by the number of scholarly publications devoted to it: instead, it is measured by the number of people involved in it.

Consider the following figures taken at random from a standard almanac (Sivard 1987). 800 million people are unable to meet minimal needs; 1,300 million do not have safe water to drink; 880 million adults are illiterate; the infant mortality rate in Sierra Leone is 198 as against 6 in Scandinavia; the life expectancy of an Afghan is 37 years whereas that of a Scandinavian is 77; the poorest fifth of the world population gets 1.6% of the total GNP while the richest fifth gets 74.2%; the U.S.A. and the U.S.S.R. together spend $1,500 million a day in "defense"; and the developing countries spend four times as much on arms as on health care. Add unemployment and underemployment, the continued growth of an already excessive population, the rapid depletion of nonrenewable resources, the dumping of toxic industrial wastes, acid rain, and particularly the threat of nuclear winter (or at least nuclear fall), and you have sketched the bleakest social and moral landscape ever contrived by man — in fact the worst of all possible worlds, to reverse

Leibniz's formula. Why moral as well as social? Because it is a result of personal greed — the lust for economic or political power — and because it will not improve unless we alter our policies and our individual behavior to conform with the principle *Enjoy life and help live*.

Our focusing on the most important moral issues of our time does not involve neglecting private morality: far from it. Public morality is not divorced from private morality if only because the moral agent is the same in both cases, namely the individual human being, and because one can hardly expect consideration for the public interest and for posterity from mass murderers or tyrants, crooks or profiteers bent on maximizing their own utilities rather than on rendering service to their fellow human beings. Private virtue is necessary for public welfare, which in turn renders private sin minuscule or even unnecessary.

1. PRIVATE MORALS

1.1 *Three Moral Spheres*

We may distinguish three moral spheres: the private, the professional (or occupational), and the public (or civic) ones. The private or personal moral sphere is the one ruled by norms supposed to hold for everyone regardless of her role(s) in society. The set of these rules, when good, usually goes by the name 'common decency'. It takes no professional training or public spirit to abstain from murdering, stealing or cheating, or to support one's dependents or to do a good turn for a friend in need.

The professional moral sphere is the one ruled by norms peculiar to each profession, such as not causing harm (on balance) in the case of the physician, and not leaving leaky pipes in that of the plumber. Since any society contains several occupational groups, each with its own specific moral code, we find a multiplicity of morals. However, the moral codes of all honest professional groups have a non-empty intersection, namely the norm "Do your job as best you can and do not take advantage of the weakness (physical, economic or cultural) of the people who employ your services".

Finally, the public or civic moral sphere is the one embracing our actions touching on matters of public interest, i.e. involving rights and duties regarding public goods, the community as a whole, or humankind.

The norms of public morality are the ones we are supposed to abide by as citizens, civil servants, community activists, politicians, or citizens of the world. See Table 6.1.

On the one hand, individualists are bound to claim that there is no difference between the three moral spheres because every moral norm regulates the behavior of individuals. On the other hand, holists are likely to hold that professional and public morals hover above personal morals and are independent of the latter. Each of the two extremes holds a grain of truth: all three moral codes concern ultimately individual behavior, but the public interest, when genuine — i.e. when geared to the well-being of all — precedes the private interest.

Still, the professional and public moralities are specializations of

TABLE 6.1. A sample of human private and public rights and duties.

	Rights to	Duties to
Private	live	help relatives and friends
	love	be fair and honest
	earn a living	support dependents
	rest and leisure	protect the weak and disadvantaged
	learn and investigate	teach
	move around	do one's work well
	privacy	keep the peace and prevent violence
	own what one needs for personal use	allow others to work, rest, and enjoy leisure
	choose place of residence	adopt a moral code of self help and mutual help
	social security	
Public	free opinion and expression	respect and protect others's rights
	associate	abide by the just laws
	elect representatives	protect public property
	run for office	protect the environment
	have access to culture	support good causes
	take part in the management of his workplace	keep well informed about public issues
	refuse to engage in acts of violence	help improve society, through both criticism and constructive work
	be judged by one's peers and by fair tribunals	pay taxes to support public services
	public services	fight warmongering, exploitation, and obscurantism

personal morality, for they take into account the special nature of the social group in question. Thus, the commandment not to embezzle public funds is just a special case of the rule not to steal, and the norm not to wage war is an instance of the rule not to kill people.

Consequently we reject the thesis of the autonomy of each moral sphere, defended e.g. by Weber (1921) and Freedman (1978). We claim that this thesis is wrong because it can be used to justify any crimes committed by *raison d'état*, from execution to occupation to conquest to genocide. Though distinct, the three moral spheres have a nonvoid intersection including such moral principles as "Enjoy life and help live", and the Golden Rule in some version or another. Consequently no maxim of professional or public morality ought to conflict with any principle of private morality if contradiction and hypocrisy are to be avoided. Thus one must not, *qua* professional or public servant, do what one ought not to do in private life. The lawyer ought not to break the law any more than he is free to cheat on his spouse; and the politician ought not to order the murder of anyone, whether compatriot or foreigner, any more than he is allowed to murder his own children.

There are several reasons for asserting the interdependence of the three moral spheres. Firstly, we wish to avoid contradiction and its moral correlate, namely hypocrisy. Secondly, we do not want to condone any crimes committed under superior orders or in the name of some cause allegedly higher that the common cause of human survival. (The Nuremberg trials ought to have settled this matter.) Thirdly, if we admit three mutually independent moralities we must concoct a fourth one in order to resolve any conflicts arising between any two of the former. But presumably such fourth morality would contain precisely those principles which we have placed in the intersection of the three moral spheres. (See Garzon Valdés 1986a for a similar argument.) Fourthly, to paraphrase Russell (1954 p. 28), without civic and professional moralities communities break down; without personal morality their continued existence is worthless or worse.

In short, there are three distinct but intersecting moral spheres: the personal or private, the professional or occupational, and the public or civic ones. Neither individualism nor holism can articulate all three into a coherent whole without sacrificing either the public or the private interest. The systemic solution is to combine individual rights with professional and civil duties in such a way that performing the latter makes it possible for the former to be exercised. No social welfare exists without individual well-being or conversely.

1.2 *Life and Death*

Since only the living can enjoy life and help live, our supreme moral principle (Norm 4.6) entails, among others,

COROLLARY 6.1 (i) Take care of your own life as well as that of others. (ii) Never put your life or that of others unnecessarily at risk. (iii) Never deliberately injure yourself or others. (iv) Protect your own life, as well as that of others, if possible by bargaining, if not by retreating, if not by defense, if not by counter-attacking. (v) Never strike first, and when you do strike back in self-defense or other-defense try to avoid killing. (vi) Refuse to take part in any killings other than those unavoidable in repealing armed attacks on home or homeland.

The right to life is the most basic of all rights, and the duty to protect life is the most basic of all duties. The basic nature of this pair is not only a matter of instinct or of morality: it is a matter of logic, for only the living can exercise rights or perform duties. Nor is the association of right and duty a contingent matter: One's right to life can only be assured with the help of others. Your (my) right to life implies my (your) duty to protect it. One's duty to protect the lives of others is usually performed by doing small services, often with no greater reward than a smile, rather than by heroic actions.

The effective implementation of the right to life in a world community with more than 5,000 million people is no easy matter. To live, a person's basic needs must be met, and this requires that certain economic, political and cultural conditions be satisfied. In particular, if every person is to live a normal life span she must have access to adequate food, drinking water, shelter, clothes, company, education, work, and health care. More than half of the world population lacks at least one of these bare necessities; as a consequence they cannot lead an active working life, much less a reasonably happy one. Therefore, proclaiming the right to life without at the same time doing something about the social order, is engage in a rhetorical exercise. Every right, in particular the right to life, is linked to other rights as well as to the duties implied by them. (Recall Theorem 4.1.) Hence, in order to protect or observe any of them we must also protect the associated rights and observe the associated duties. In complex matters sectoral thinking is bound to fail: only systemic thinking can succeed in grappling with whole systems of problems.

Our supreme maxim enjoins us to enjoy life not just to survive. Now, it is hardly possible to enjoy life unless one is free to choose one's

lifestyle and occupation rather than having them imposed upon us without regard for our likes and abilities. Hence Norm 4.6 entails

COROLLARY 6.2 Everyone is entitled to choose her own way of life as long as it is neither harmful nor burdensome to others.

Thus everyone ought to be free to become farmer or cosmologist, computer programmer or brain surgeon, manager or even philosopher. But of course one won't get the help required to realize this ambition unless one shows promise and happens to live in a society where such help is available. Any career other than that of the unskilled worker calls for a rather long and demanding training punctuated by agonizing competitions: the freedom promised by Corollary 6.2 involves the possibility of failure. There is more: Since in every society some occupational groups are overcrowded whereas others are underpopulated, some measure of career planning is necessary. But such planning should consist mainly in encouraging — by means of fellowships and good job prospects — people to enter the most needed professions. And we must also be prepared to treat people willing to do disagreeable or dangerous jobs better than people whose task it is to read and explain novels or plays.

Most moral philosophers have been only concerned with the political, cultural and property rights of white adult males. Nowadays the rights of nonwhites and of women are recognized almost universally, though often only *de jure* rather than *de facto*. As for the rights of children, they pose a peculiar problem. They have not always enjoyed rights, not even the right to life. Infanticide, neglect, and the story of Abraham's sacrifice strike us now as barbarous and immoral; so do the data about child labor in Victorian England and in the European enclaves in China. The trend towards greater children rights is encouraging, but in the affluent countries many parents fail to teach their children that they have duties as well as rights. A teenager who feels that he has no duties whatsoever has been allowed to become an antisocial individual. Performing certain duties without being paid, in particular sharing in the housework, from the moment muscular coordination is attained, is simply being part of the family and becoming a useful member of society. Permissiveness, i.e. rights without duties, breeds moral monsters. And the idea that there can be education without coercion is a myth. "The task is not to undertake a vain search for the coercion-free educational system, but to consider ways in which the inevitably coercive aspects of socialization can be justified" (Ackerman 1980 p. 163).

So much for the right to life of living persons. Let us now deal with the unborn. This issue is covered by Norm 4.7: *Seek the survival of humankind.* This entails, among others,

COROLLARY 6.3 (i) Procreate without overtaxing the carrying capacity of the planet. (ii) Avoid *the* nuclear war (for it would almost certainly wipe out all human beings). (iii) Stop overexploiting the non-renewable resources and intensify the search for nonconventional energy sources as well as for extraterrestrial mineral resources. (iv) Clean up the environment, avoid polluting it any further, protect the forests, and reclaim the deserts.

Let us comment briefly on clause (i), leaving the rest for Sect. 2. In view of the current overpopulation, and that today about two billion people are not adequately fed, sheltered, educated, or gainfully employed, clause (i) must be taken very seriously on a planetary scale. The right to parenthood must be severely restricted, and planned parenthood must become a duty if humankind is to survive. It is up to demographers, economists and educators to figure out what the reasonable populations and birth rates should be in the various regions of the world; and it is up to the statesmen to adopt the experts's advice and have it understood and implemented by their communities. In short, the world population has become so huge, and the resources so strained, that parenthood has ceased to be a human right.

In contemporary civilized societies the right to human life extends normally from birth to natural death. Whether human embryos have the right to life is of course a disputed question. The affirmative opinion is based on the religious dogma that embryos have an immaterial and immortal soul insufflated into them by the deity. Why this dogma should be regarded as the ground for opposing abortion is incomprehensible: if the soul is immaterial and immortal, then it cannot possibly be harmed by its being separated from the body. Besides, contemporary child psychology has established beyond doubt that human embryos, or even fetuses, have no mental functions: that the latter start to develop only after birth. Before birth we are certainly human beings but not human *persons*. (Recall the Definition 4.46 of a person in Vol. 4, Ch. 4.) In short, the theological objection to abortion does not hold water.

Abortion should be avoided for a different reason, namely because it may be physically and mentally traumatic to the woman who has it done. The only way to avoid abortion, short of celibacy, is of course to avoid unwanted pregnancies, i.e. to practice scientific birth control.

However, if impregnation were to occur by accident, abortion should be permitted on the principle that the whole, if good, is better than any of its parts (Postulate 3.2). Moreover it should be recommended if the child is not wanted, or tests show that it would be severely handicapped. The reason for this recommendation is that it is morally wrong to make three people — the unwanted child and his parents — unnecessarily miserable. In any event, given that every year about ten million babies are born malnourished, fourteen million children die of hunger-related causes, and an estimated fifty million children have no shelter whatsoever, the issue of abortion is comparatively a minute one blown out of proportion by religious bigots.

The right to life extends to all persons, even to the worst criminals. There are two reasons for this view, one moral and the other practical. The former is that killing is always wrong, particularly so in cold blood: Two wrongs do not make a right. The practical reason is that statistics show that the death penalty is not an effective deterrent. There is a further reason, that is both moral and prudential, namely the slippery slope argument. Once you hang criminals of type A, you find it easy to hang those of kind B, and so on, till finally you hang mere suspects or rivals — as Hitler and Stalin did. For either of these three reasons the death penalty has been abolished in nearly all civilized countries. Crime is not to be punished but prevented. And, should it occur even when its causes have been eliminated, the offender should be reeducated as well as forced to do some socially useful work.

Since the right to life is vested in individuals, not societies, everyone has the right to take his own life or to ask to be put to death: life is *his* to enjoy or terminate provided he harms nobody by doing either. In other words, suicide should be regarded as a strictly private matter as long as the suicide does not leave destitute dependents behind. Everyone is justified in terminating his own life if he finds it unbearable due to intense chronic pain, loneliness, a feeling of uselessness, or unredeemable remorse. But of course all of the would-be suicide's acquaintances have the duty to try and change his circumstances so as to make his life worth living. Volunteer workers in suicide prevention centers know that a common sense piece of advice or a single affectionate gesture may suffice to change the would-be suicide's mind.

Euthanasia, or mercy killing, differs from suicide in that it involves a second party. It is justifiable under the same circumstances that justify suicide: when there is no more life left to be enjoyed. However, it is

morally and technically wrong to throw the burden of mercy killing on the shoulders of a single person, such as a physician or a nurse. The decision to perform euthanasia should be reached after a rational and compassionate deliberation involving the patient (unless he has suffered brain death), his nearest relatives or friends, and a trio of professionals, e.g. a physician, a psychologist, and a social worker.

Murder, abortion, suicide and euthanasia are hotly debated issues because of religious dogma and because anyone can easily "identify" (empathize) with the victim. But they are very minor problems by comparison with war, famine and pestilence, which affect a vastly larger number of people.

Finally, what is the relation between morals and the knowledge of our mortality? This knowledge affects different people, with different cultural backgrounds, in different ways. Some take mortality as a reason for being virtuous or pious, others as an excuse for debauchery. Long ago, the *memento mori* induced some people to spend more time learning the *ars moriendi* than practicing the *ars vivendi.* Others, in particular the Stoics and the Buddhists, conquered the fear of death by becoming gradually detached from everything that makes life worth living. On the other hand the contemporary secular humanists believe that, because life is short, it should be lived to the full, and that we must become passionately attached and loyal to some people and certain causes, so that we may not regret having lived in vain. Take care of your *curriculum vitae*, and your obituary will take care of itself.

1.3 *Virtue and Sin*

If talk of virtue and sin sounds old-fashioned it is because some moral philosophers avoid using the words for fear of being taken for theologians, whereas others have surrendered to hedonism or even to moral nihilism, the natural companions of individualism. But of course moral virtue and sin, both private and public, are what morality is all about, as will be seen below.

What is true is that every culture has its own catalogues of virtues and sins. On the one hand, for example, the traditional Christian virtues were faith, hope, charity, temperance, prudence, justice, and fortitude. On the other hand the virtues extolled in a modern capitalist society are initiative, skillfulness, industriousness, competitiveness, prudence, acquisitiveness, and smartness. In a better society competitiveness would presumably be replaced or supplemented by mutual help, acquisitiveness by justice, and smartness by rationality. And the traditional

Christian virtues would not be dropped but updated: religious faith would be turned into faith in man, and hope for an afterlife into hope for a better world, but the other five would remain.

The list of sins too has suffered some changes. The traditional Christian deadly sins were pride, covetousness, lust, envy, gluttony, anger, and sloth. Except for the last, these look very much like the traits of character admired by the proverbial tycoon. On the other hand a secular moral philosopher might approve of the Christian list with only minor changes. For example, he might disapprove of pride in belonging to a privileged group, but might approve of pride in useful work well done, and might allow for lust but only in moderation. And he might also sympathize with Gandhi's list of sins: wealth without work, pleasure without conscience, knowledge without character, commerce without morality, science without humanity, politics without principle, and worship without sacrifice — only, he would worship, or rather respect, nature, in particular man, instead of supernature.

If we are to take virtue and sin seriously we must start by defining our terms and proceed to justify our preferences. We begin with

DEFINITION 6.1 (i) A *virtue* (or *sin*) is a trait of character that disposes her owner to realize a positive (respectively negative) value. (ii) A *moral virtue* (or *moral sin*) is a trait of character that disposes her owner to behave in a morally right (respectively wrong) way. [Recall Definition 4.2.]

Perseverance and diligence are nonmoral virtues, whereas fickleness and sloppiness are nonmoral sins — as long as their commission does not harm others. On the other hand altruism is a moral virtue whereas egoism is a moral sin. Our definition embraces only character virtues and leaves out ability virtues, such as intelligence and creativity. (See Rescher 1969 for this distinction.) The reason for this exclusion is that, from an ethical viewpoint, ability virtues, such as intelligence and discipline, are only means to moral virtue.

We shall deal only with moral virtues and sins, starting with altruism and egoism. Both come of course in degrees. In particular, altruism goes from solicitude to sacrifice, from lending a helping hand to laying one's life for another. We shall define 'altruism' as *concern* for the welfare of others, and 'egoism' as *exclusive* concern for one's own welfare.

Every known moral code enjoins us to be altruistic to some extent or other. One reason for this is of course that everyone needs some help from others: without some altruism no newborn would survive and no

social group would last. Moderate altruism is only enlightened self-interest, a much more powerful social engine than sacrificial devotion to the welfare of others. On the other hand egoism is biologically suicide, socially corrosive, and immoral.

Our sole axiom about virtue and sin is this:

POSTULATE 6.1 Altruism is the highest moral virtue, and egoism the lowest moral sin.

The justification for this postulate is that altruism embraces all of the moral virtues and egoism covers all of the moral sins one can think of: See Table 6.2.

When saying that altruism is the highest moral virtue we mean that all of the other virtues are implied by altruism. The same applies to

TABLE 6.2. Some of the moral virtues and sins contained in altruism and egoism respectively.

Altruism	*Egoism*
Benevolence	Malevolence
Compassion	Cruelty
Considerateness	Inconsiderateness
Courage in facing moral problems	Moral turpitude
Courage in holding one's beliefs	Cowardice in holding one's beliefs
Discretion	Indiscretion
Environmental concerns	Environmental unconcern
Fairness	Unfairness
Filial devotion	Filial neglect
Forgivingness	Vindictiveness
Generosity	Avarice
Good will	Ill will
Honesty	Dishonesty
Helpfulness	Unhelpfulness
Loyalty	Disloyalty
Peacefulness	Violence
Public spiritedness	Civic indifference
Reliability	Unreliability
Respect for others's rights	Disregard for others's rights
Self-restraint	Incontinence
Sincerity	Hypocrisy
Tolerance (except for sin)	Intolerance (except for sin)
Trust	Mistrust

egoism. For example, altruism implies discretion and loyalty but not conversely: some people are discrete and loyal out of fear. Likewise, egoism implies indifference to environmental issues and civic apathy, but not conversely: an individual may be indifferent to environmental pollution and to political matters out of ignorance.

(Two points of logic before going on to substantive matters. First, virtues and sins are not necessarily mutually contradictory. Thus "peacefulness" has a single opposite, namely "violence". On the other hand the negation of "compassion" is the complex predicate "either indifference to other people's plights or cruelty". Second, the negation of a predicate is defined implicitly, namely thus: $(\neg P)x =_{df} \neg Px$. Likewise the disjunction of two predicates: $(P \vee Q)x =_{df} \neg Px \vee Qx$. In particular, $(P \Rightarrow Q)x =_{df} (\neg P \vee Q)x =_{df} \neg Px \vee Qx$.)

According to the Stoics and to Kant virtues are absolute ends in themselves and they are their own reward. For example, Kant held that it is wrong to lie for the love of another even if, in so doing, we would protect him from a murderer. Constant (1797) argued against Kant that there are no duties without rights; to tell the truth is a duty but only with regard to those who have a right to the truth; the murderer has no such right, hence we should not tell him where his prey is hiding. We agree with Constant. We do not have to choose between the Kantian *Fiat virtus, pereat vita* and the Nietzschean *Fiat vita, pereat veritas*. We opt for *Fiat vita, virtus et veritas*.

In the light of our supreme moral norm *Enjoy life and help live*, morality is not the worship of absolute values in themselves, regardless of circumstances, but a system of behavior rules subordinated to that supreme norm. This entails that virtues and sins are to be taken *in context* not in isolation. Thus loyalty is a virtue provided it serves higher values. For example, by betraying the trust placed in him by the dictator Franco, King Juan Carlos I of Spain remained loyal to his people. And by denouncing World War I, Russell, Einstein, Nikolai and a handful of others disobeyed their power-hungry rulers but were loyal to mankind.

No moral alchemy was at work in these cases: moral virtues did not get transformed into sins or conversely. What does happen is that there are no virtues or sins in themselves, just as there are no values in themselves. Instead, there are actions that, in certain circumstamces, or in view of certain goals, are virtuous whereas others are sinful. For example, it is right to help the needy or weak but wrong to help the

wicked; it is right to forgive the repentant sinner, wrong to forgive the unrepentant one; and it is right to tell the truth to those who may make good use of it, wrong to tell it to those who are likely to make evil use of it. In short, virtue and sin are contextual or situational, not absolute.

Like rights and duties, virtues tend to flock together; sins are parallel. Any morally right action is likely to require further actions of the same kind; morally wrong actions are parallel. For example, performing a fair action involves good will, honesty, respect for other people's rights, and perhaps compassion and courage as well. In turn, putting compassion to work requires good will, generosity, honesty, and perhaps sincerity and courage as well. Both are examples of what may be called *moral virtuous circles. Moral vicious circles* are similar. Familiar instances are the use of violence to cover up dishonesty, of hypocrisy to perpetuate privilege, and of the disregard of others's rights to advance one's own.

Virtues (and sins) coalesce into systems, and these into supersystems. Thus sincerity, honesty and fairness together make up moral integrity. But moral integrity is compatible with a good measure of insensitivity to human suffering, hence with unwillingness to get involved in any good cause. Hence moral integrity is insufficient to make a fairly virtuous person. The virtuous person is as altruistic as it is possible to be without engaging in heroic self-denial.

Sins do not come in isolation but in systems. Thus the protection of crime involves lying, and the refusal to admit one lie leads to telling another. Virtues too coalesce into systems but not spontaneously: We must ensure that they do not conflict with one another. Thus kindness often comes into conflict with either justice or truthfulness; freedom, with efficiency or cooperativeness; loyalty, with fairness or with concern for humankind — and so on. Virtue conflicts can only be resolved either by deferring to the highest value involved or by working out a compromise.

1.4 *Ten Virtues*

In this section we analyze a mixed bag of moral virtues, genuine or bogus, which will make their entrance in alphabetical order. First comes *charity*, a spontaneous or calculated, individual or institutional action intended to relieve someone else's suffering. Shocking though it may sound, charity has ceased to be a virtue in modern times because (*a*) it helps perpetuate inequality and injustice instead of abolishing them and

(*b*) it is sometimes used for such goals as climbing the social ladder, embellishing a corporation's tarnished "public image" or helping it save on capital gains taxes (Vickrey 1975), or achieving political domination – neither of which is morally justifiable.

The case of foreign aid is of particular moral, economic and political interest. It is certainly humanitarian in times of crisis (e.g. famine, flood, or pestilence). But when habitual it does more harm than good because (*a*) the recipient loses the habit of working to solve his own problems, (*b*) free food ruins whatever agriculture there was in the receiving country to begin with, (*c*) people get into the habit of eating foodstuff (e.g. wheat) that does not grow as well as their traditional cultivars, such as millet, sorghum, and rice, and (*d*) dependence on foreign aid strengthens political dependence.

The solution to endemic food shortages lies in a combination of endogenously generated social (e.g. land) reform with foreign technical help aiming at improving native agriculture. Such technical help may consist in (*a*) helping improve methods of irrigation, fertilization, harvesting, seed selection, and desertification control; (*b*) helping set up farmers's cooperatives for the production and direct sale of native grain to the urban population; and (*c*) helping improve the educational system, not only by teaching new (but appropriate or soft) technologies, but also the virtues of self-reliance and mutual help. Clearly, no such agricultural development plan can be efficient unless designed and implemented in close cooperation with the local authorities. In short, the only efficient and genuinely altruistic kind of charity is the proverbial "Help others help themselves". This is the only kind of charity with dignity. (For technical specifics see e.g. Spurgeon Ed. 1979.)

What is dignity? We identify it with respect. More precisely, we stipulate

DEFINITION 6.2 A person *b*

(i) is *treated with dignity* $=_{df}$ *b* is treated as a human being with rights and duties rather than as a tool;

(ii) *behaves with dignity* $=_{df}$ *b* behaves with self-respect, i.e. does not relinquish any of her rights and duties out of greed, fear, or the wish to conform.

To behave with dignity is not the same as to behave in a "dignified" manner, i.e. to pretend that no harm or inconvenience is done. Nor is it to put up with pain or loss: this is stoicism.

Forgivingness comes next. We should forgive the repenting sinner

and we should never take revenge — which not only the ancient Greeks and Romans but also the *Old Testament* (*Deuteronomy* 32—35) and St. Paul (Romans 12: 19) regarded as a divine pleasure. But it would be unrealistic to ask anyone not to hate his enemies, as Christ and Spinoza wished. This would be biologically impossible, for hatred is one of the oldest brain functions. What we can do and ought to do is (*a*) to keep hatred under rational control, and (*b*) to work for a society where rivalry is not accompanied by violence. Either calls for good will.

Good will is the disposition to do good. According to Kant (1785) good will is a good in itself, regardless of the consequences. Popular wisdom in this regard, encapsulated in the saying "The way to Hell is paved with good intentions", knows better. Beware of the fool's good will: although his intentions may be excellent, his actions may be disastrous for lack of skill or knowledge. Only the intention-means pair may be attributed a full value. The value of any one of the members of this couple may be cancelled by the disvalue of the other.

Helpfulness is of course the spontaneous disposition to help others attain their goals. When reciprocal and limited to socially admissible goals, helpfulness is called *solidarity* or *fraternity*. Together with participation, the sharing of basic values and beliefs, and communication, solidarity makes up the mortar that holds social groups together. As Tocqueville (1835 Part II, Ch. IV) remarked long ago, social stratification hinders solidarity, whereas equality favors it. Hence, if we value solidarity we should promote equality. This is one more example of the inseparability of morality and the social order.

Honesty has several components: intellectual (truthfulness), political (service and transparency), and economic (not stealing). Let us confine our attention to the latter. Theft poses at least two moral problems: Whether it is always morally reprehensible, and when it is, why it is. According to an absolutist morality, such as Kant's, theft is always abominable. Not so according to a situational morality, i.e. one that takes the agent's circumstances into account. According to this view theft is morally justified on the conditions (*a*) that the agent commits the offense only occasionally, and to survive or to help someone else survive, and (*b*) that the action does not jeopardize the victim's survival.

What holds for ordinary theft holds for the expropriation of land or some other means of production. Expropriation is morally justified when (*a*) it is necessary to improve the well-being, and even more so to ensure the survival, of a group of people willing and competent to work the concern in question, and (*b*) if the previous owner receives a

compensation or is invited to join the new enterprise. The right to life takes precedence over property rights because ownership, though sufficient, is not necessary to meet any basic needs. (More in Ch. 11, Sect. 3.)

Our second moral problem concerning honesty is this: Why should I refrain from stealing except to survive? The lawyer answers: To stay out of jail. The economist: Because it is in your own best economic interest. The individual psychologist: Because you have been conditioned to behaving honestly during your socialization period, and feel pity for your would-be victim. The social psychologist: Because theft generates mistrust and fear from sharing. The moral philosopher: Because theft is unfair to the victim. Who is right? They all are: There are several reasons for behaving honestly in most cases, even though one of them may be overriding in a given case. In the case of public property there are further reasons: Selfish, such as the wish to continue to have access to it or to avoid having one's taxes raised, and altruistic, such as public spiritedness. Both are justified.

Humility used to be regarded as a virtue. Nowadays we tend to think that a humble person underrates herself to the point of losing her self-respect and of refraining from taking credit or initiative. Humility must not be mistaken for modesty, or realization of one's unavoidable limitations with regard to both competence and rights. Typically, the original scientist, technologist, or artist, is modest but not humble: on the contrary, he is ambitious. There is nothing wrong with the ambition to attain something good, everything wrong with total lack of ambition or with the ambition to aggrandize oneself at the expense of others. Here as elsewhere the right path lies between the extremes: self-restraint is the ticket.

Self-restraint lies between self-indulgence (or incontinence) and self-denial (or self-mortification). The self-restraint of the virtuous person derives from his modesty (or consciousness of his own limitations) or from his concern for others, who would be harmed if he were to indulge in excesses, particularly in what Veblen (1899) called 'conspicuous consumption'. We owe it to ourselves (for reasons of health) and to others not to produce or consume anything in excess, particularly in view of the increasing scarcity of natural resources. Frugality is one of the virtues involved in a survival morality. Consequently inciting to conspicuous consumption and tolerating waste and wanton destruction are serious sins. In general, too much of any good thing is bad.

Self-restraint ought to apply, in particular, to sex. Here again the right

path lies between abstention and profligacy: between self-denial and self-indulgence. The rationale for this norm is again our supreme maxim *Enjoy life and help live*. The first conjunct invites us to enjoy sex, the second to procure pleasure rather than harm to our partner. A sexual practice is morally objectionable only if it causes harm (bodily, mental or social) or displeasure to at least one of the persons involved in it. Our principle suggests that sexual virtue is identical with good old original sin in any of its healthy and pleasurable varieties.

By definition, original sin involves monogamy. Polygamy and polyandry are unfair, hence immoral, in societies with normal sex ratios because they leave some people unmated. But where the sex ratio deviates considerably from the normal it might be prudent to allow for a temporary deviation from monogamy. (Historical examples: Germany after the Thirty Years' War and Paraguay after the war against the Triple Alliance.)

As for homosexuality, there is no doubt that it is abnormal, but not more unnatural than disease. The right moral and practical attitude of heterosexuals toward homosexuality is (*a*) to admit that it is a deviation from the norm caused by either hormonal imbalance (hence in principle corrigible with testosterone injections) or by wrong upbringing (hence in principle corrigible with behavior therapy); and (*b*) to tolerate it without encouraging it among adults, while trying to prevent or cure it among children in the same way we deal with polyomielities or with selfish habits. Incest is in a similar boat: (*a*) it is avoided by the great majority of mammals and birds, which seem to value diversity (Harvey & Talls 1986), and (*b*) it is socially corrosive because it destabilizes the family and, unlike exogamy, it blocks the formation of larger alliances.

Next comes *sincerity*, which is likely to be peculiar to man. Deception — hiding, mimetism, mimicking animals of different species or even plants — is a rather common practice in the struggle for animal life. It is likely that man recognized rather early on that sincerity is essential to group stability, for it generates trust, without which there can be no social cohesion. On the other hand deceiving members of certain groups is still often regarded as praiseworthy. Plato, Voltaire, Nietzsche and James advocated employing useful ("royal", "noble") lies to keep their fellow men at bay. This policy may pay in the short run but it is sinful and socially corrosive.

Contemporary career diplomats are taught never to lie — but never to tell the whole truth either. They practice tact — dissimulation, self-

restraint, and tolerance. Tact greases the wheels of social intercourse. It must be distinguished from hypocrisy, which is the faking of feelings. Whereas tact is beneficial for reducing unnecessary friction, hypocrisy is harmful because it allows the agent to occupy a place that he does not deserve.

Both tact and hypocrisy must be distinguished from moral inconsistency, i.e. the doing of what one finds morally reprehensible, or the refraining from doing what one believes to be morally commendable. (For example, the present writer believes in the benefits of vegetarianism and of political participation, but he eats meat and he rarely does more than paying his party membership dues.) Because moral inconsistency is bad for one's conscience and generates uncertainty and mistrust in others, we should reform society so as to minimize the number of occasions for indulging in it.

Our last item is *work morals*. Whereas *Genesis* (III, 17) regarded work as "the painful expiation of sin", Luther and Calvin regarded it as virtuous. (For a history of the subject see Tilgher 1930.) Several reasons have been given for the modern attitude toward work. According to some, work is moral because it is the only honest method for getting rich or at least avoiding poverty. (False: Millions of people work hard without rising above the poverty level.) Others claim that work is good because it gives a person a chance to create. (False: As a matter of fact most work, even in science and in art, is drudgery.) Still others claim that work is good because it helps your neighbor. (Not always: Working in an arms factory, or in a junk food or junk art factory, harms your neighbor.) The truth is that only useful and harmless work is good for self and others, whereas voluntary habitual idleness is sinful because it is selfish.

Since work is good, nay indispensable for survival, every able-bodied person has the duty to do some work. But in order to discharge our work duty we must have the right to work. Regrettably, nowadays millions of people cannot exercise this right: they do not find jobs. In the advanced countries the state takes care of the unemployed by doling them out just enough money to subsist. Such compensation is the least evil, hence it should be taken as a stop-gap. We should aim for a society where the relief state is unnecessary because everyone can earn his up-keep and that of his or her dependents; this is so because unemployment causes moral disintegration and unemployment compensation is charity. The aim should then be neither to extend the

welfare benefits (the liberal wish) nor to shrink them as much as possible (the conservative dream), but to render them unnecessary. A social order incapable of guaranteeing the right to work is at best inadequate, at worst immoral. (More in Ch. 10, Sect. 1.4.)

1.5 *Desert and Reward, Crime and Punishment*

The concepts of good and evil, and those of virtue and sin, are necessary but insufficient to judge whether a given action deserves reward, punishment, or neither. To this end we need, in addition, the concepts of erogatory, supererogatory and undererogatory action. Doing one's duty is erogatory; this is all that the laws and regulations can demand in fairness. Doing more than what is strictly required is called a 'supererogatory action'; and doing either less or the contrary of what is required, may be called an 'undererogatory action'.

It is generally accepted that doing one's duty does not call for any special reward. Only acting beyond the call of duty entitles the agent to a special reward. And failing to do it or worse — i.e. sinning actively and harmfully against someone's basic rights — deserves punishment. However, such deserts are subject to moral as well as social constraints: rewards should not consist in privileges paid for by the misery of others, and punishments should not be destructive. More precisely, we propose

NORM 6.1 (i) The exercise of basic rights, and the performance of basic duties, deserve no special rewards or punishments. (ii) Supererogatory virtuous actions deserve reward, and undererogatory sinful actions deserve punishment. (iii) A just reward of the virtuous meets one of his legitimate aspirations. (iv) A just punishment of the sinner does not put his life at risk and it aims at his reeducation and rehabilitation.

A consequence of the adoption of this principle is that in any society some people fail to realize some of their aspirations either because these are unrealistic or because they pass unrecognized. The principle is consistent with the cult of the self-made man and inconsistent with the "entitlement theory" prevalent in the times of slavery and serfdom, and recently resurrected by Nozick (1974). As well, it is incompatible with the doctrine of collective responsibility and its attendant collective rewards and punishments.

A social group wherein merit is not recognized and rewarded, is doomed to stagnation, and one wherein crime is not punished is bound

to decline or even disintegrate. As the English saying has it, where everybody is somebody, nobody is anybody. In such a radically egalitarian (or mediocritarian) society the word 'important' becomes meaningless, and there is little incentive to to anything outstanding or to take on any initiative. For example, a community of scholars where proofreaders, translators, and editors are placed on the same level as investigators and writers is bound to discourage or even harass its creative members.

In a society where the principle *Enjoy life and help live* prevails, the most meritorious actions are those which save lives or enhance the quality of life, and the worst crimes are those that cause the loss of lives (either directly by the force of arms or indirectly through poverty) or depress the quality of life. In such a society the saints or heroes are those who devote their lives to constructive causes, whereas the villains are those who are dedicated to destruction, oppression, or exploitation.

Murder is the worst of all crimes because it denies the right to life, which is the most basic of all rights. This is why most moral codes condemn murder. However, few do so consistently: in fact many codes condone legal murder, i.e. the death penalty, and the massacres perpetrated in the name of an ideology or in the alleged interest of a nation. That is, they condemn retail private murder but condone state mass murder — which, to say the least, is contradictory.

Although every murder is reprehensible, it is the more serious, the greater the number of victims. Accordingly we may rank the seriousness of homicidal acts: single person murder, small social group (e.g. family) murder, large social group (e.g. ethnic minority or political party) murder, war, and omnicide — i.e. the murder of every single human being through nuclear war. On this scale political terrorism, whether committed by a band of fanatics or by a state, lies midway between manslaughter and war. Though morally repugnant and politically inefficient in the long run, political terrorism has been blown out of proportion by the very political rulers who have engaged in state terrorism. As a matter of fact political terrorism is peanuts in comparison with genocide and war, which are always state controlled.

The state has, or ought to have, the right and the duty to protect human rights — in the first the right to life — and to force the observance of basic duties. Regrettably there are some criminal states, i.e. states where "law and order" forces specialize in jailing or assassinating political opponents, labor organizers, or intellectual leaders —

or in preparing and waging aggressive wars. Hegel and the legal positivists notwithstanding, might does not make moral right. Unfortunately most moral and legal philosophers have failed to address these larger issues.

The ordinary courts of criminal law only handle retail murder. They lack the laws and the power required to arraign the politicians or the brass responsible for state terrorism, genocide, or war; and of course there would be nobody left to judge the culprits of omnicide. Only some grassroots organizations, in particular political parties, have or may gain the power necessary to prevent or stop large scale murder. (For example, the Vietnam war was stopped by a popular antiwar movement.) This suggests that Aristotle was right in holding that ethics must be allied to politics. (More in Chs. 11 and 12.)

1.6 *Summary*

We distinguish but do not separate three moral spheres: the private, the professional, and the public ones. Correspondingly we distinguish private from public rights and duties, though without detaching them. For example, concern for other people's rights should be a crucial concern in all three spheres.

The most basic of all rights is the right to life, and the most basic of all duties that of protecting life. These rights and duties are to be understood in a broad manner that includes the right to choose one's way of life as long as it is neither harmful nor burdensome to others.

The right to choose one's way of life entails the right to abort an unwanted child. However, given the traumatic effects of abortion it should be avoided in the only rational way, which is by birth control. The latter will have to be universalized in order to check the suicidal population explosion.

Every morality is about virtues and sins. A moral virtue is definable as a trait of character predisposing to morally right behavior. Moral sins are parallel. In the last analysis all moral virtues are one, namely altruism; and all moral sins are one, namely egoism. Virtues and sins are not absolute but contextual or situational. For example, it is right to forgive the hungry person who steals a loaf of bread.

Some dispositions that used to be regarded as virtues, such as charity and honesty, are limited. The former because it may perpetuate helplessness and social injustice, the latter because the hungry may on occasion be forced to steal. Every candidate to virtue or sin must be evaluated in the light of the supreme norm *Enjoy life and help live.*

Supererogatory deeds deserve reward, whereas crime deserves punishment. However, the virtuous should not be rewarded at the expense of others, and punishment should aim at rehabilitation rather than revenge.

Murder is the worst crime, and mass murder — in particular war — is the worst of murders. The effective prevention of murder calls for social reforms, not just penal legislation. This holds in particular for the prevention of mass murder. Ethics must eventually coalesce with political science, and morality with political action.

2. PUBLIC MORALS

2.1 *Human Survival Issues*

Until recently most moral philosophers, with the notable exception of Aristotle, Spinoza, and Russell, could pretend in good faith that they could and even should remain above the political fray. The threat of nuclear world war, the rapid degradation of the environment, and the equally fast depletion of non-renewable resources, should have put an end to political innocence.

The Rev. Theodore M. Hesburgh (1983) has stated rightly that the most important and pressing of all the moral problems facing us today is that of the nuclear arms race for, unless stopped, it may put an end to all human life and therefore to all moral problems. Something similar may be said about biological warfare. Next in urgency come the twin problems of environmental degradation and of depletion of mineral (in particular oil) resources, for without a clean environment we shall not be able to live healthily, or even at all, and without mineral resources our descendants will be forced to return to the Stone Age. For these reasons we posit

POSTULATE 6.2 The most serious and pressing moral and practical tasks of our age are (i) to destroy all the nuclear and biological weapons, and to effectively block any attempt to resume their production, testing, and use; (ii) to clean up the environment, stop pulluting, and dispose rationally (e.g. by recycling) of the industrial and domestic wastes; and (iii) to halt the unbridled exploitation of the natural resources — particularly of the non-renewable ones — and to accelerate the search for alternative resources.

There are, to be sure, plenty of other pressing moral and practical problems, such as those of poverty, political oppression, and cultural

deprivation, which affect roughly four-fifths of the world population. However, they cannot possibly be addressed unless humankind survives. Besides, they might be resolved within the next generation if only the current military expenditures, incurred at the tune of $1.8 million a minute, were diverted to good causes. Last, but not least, the three world-wide problems referred to in Postulate 6.2 concern every single human being regardless of nationality, class, or ideology. The moral problems to be tackled in the subsequent sections do not disturb the sleep of the privileged and they shade into ideological issues.

2.2 *Equality*

Marked inequality generates unhappiness, low self-esteem, envy, greed, dishonesty, anomie, dissatisfaction with the social order, and their social manifestation: uncooperativeness, violence, and eventually rebellion and its bloody sequels. The more marginal the individual, the less bound he feels to observe the prevailing moral and legal codes. For example, where gypsies are discriminated against they feel free to steal from members of the ethnic majority, whom they rightly regard as aliens, although they would not dream of stealing from one another (Martínez-Selva 1981). In short, the downtrodden are socially and morally anomic, and a deeply divided society is potentially explosive.

In a stratified society, particularly one lacking social mobility, it is only natural to behave in an egoistic manner toward members of other groups, either to survive or to retain privilege. In such a society altruism, reciprocity and mutual help occur only among members of the same social group, i.e. among equals. On the other hand in an egalitarian society, where everyone has roughly the same rights and duties as anyone else — hence similar benefits and burdens — there is no justification for witholding cooperation, much less for rebellion. Hence if we wish social cohesion and the effective rule of a single moral code dominated by the norm "Enjoy life and help live", we had better strive for an egalitarian social order.

Equality is necessary for attaining further social desiderata as well. To begin with, liberty can only flourish among equals for, as soon as some individuals become significantly more powerful than others, they are bound to take advantage of the weaker members of society. (See Tocqueville 1835, Part II, Ch. I.) Fraternity is parallel: If we wish to be treated in a brotherly way we must be effectively brothers or sisters, not poor cousins or rich uncles. (See Tocqueville 1835 Part III Ch. IV.) So is justice: Global fairness, i.e. economic, political and cultural justice can

only exist among equals. In a divided society much energy is invested either in redressing grievances or in power abuse. Finally, integral democracy is in the same boat for the same reason; as a matter of fact integral democracy is hardly distinguishable from equality. See Figure 6.1.

(On the other hand the preservation of world peace and of the environment are largely independent of the equality issue, for they are in the interest of everyone. Moreover they are far more urgent tasks than that of attaining equality — which, after all, can also be attained instantly through nuclear war or gradually through environmental degradation.)

The problem then is not whether we ought to seek equality, but what kind of equality is best conducive to enjoying life and helping people live. To begin with it is obvious that, the American Declaration of Independence notwithstanding, all humans are not born equal: we only end up by being equal. The point is not to pretend that we are all born equal, much less to attempt to force biological equality (e.g. by cloning a single individual), but to preserve biological variety while preventing natural inequalities from developing into social inequities. In short, biological egalitarianism is impossible; and, even if it were possible, it would be undesirable.

Nor is radical or literal social egalitarianism desirable. For one thing it would be unfair to the very young and the very old as well as to the handicapped and the sick, all of whom require extra care. For another it would discourage, or at least not encourage, any supererogatory actions. Those who render distinguished service to society, e.g. by performing dangerous or dirty jobs, deserve rewards beyond their

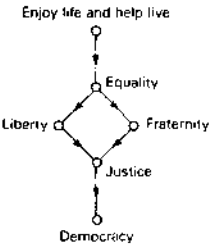


Fig. 6.1. Equality as a precondition of liberty and fraternity, which together make moral (social) justice possible, which is a prerequisite for (integral) democracy.

rights. What we want then is an equality that recognizes special needs and merits, as formulated in

NORM 6.2 (i) All human beings have the same rights to use the natural, economic and cultural resources of their society as they see fit and as long as they respect the same rights of others. (ii) All human beings have the duty to do their best to take care of themselves and to contribute to the well-being of their fellow humans as well as to pursue the survival and advancement of humankind. (iii) The sole inequalities justified in the distribution of goods and services are those which are to the benefit of all — namely the rewards of merit and punishments of misdeeds in accordance with Norm 6.1.

We may call this the *principle of qualified equality* or, in Ackerman's (1980) felicitous phrase, *undominated diversity*. It is a moral principle for concerning basic and universal rights and duties. Clause (i), the principle of resources equality, is a version of the norm of equal opportunity. It lies behind Kant's categorical imperative, or principle of the universalizability of all moral and legal norms. (In fact, Kant's principle cannot hold among unequals.) Put negatively, clause (i) enjoins us not to demand privileges, i.e. special rights without corresponding balancing duties. And the principle entails that no person may own any other person: it condemns slavery and serfdom, whence it justifies rebellion against slavery and serfdom.

Clauses (i) and (ii) together constitute a version of the socialist principle "To each according to his needs, from each according to his abilities". On the other hand clause (iii), which supplements Norm 6.1, is a modified version of a much criticized maxim due to Rawls (1971 p. 62). It is motivated by the obvious proposition that it is in everyone's interest that the most delicate, dangerous or dirty jobs be entrusted to those who are competent and willing to do them, and their holders be suitably compensated for their extra burdens — as long as they retain their abilities and be subject to control in order to avoid the abuses deriving from the concentration of power.

Clause (i) talks about *access* to, or *use* of, natural or social resources, not of private ownership. (Ownership implies right to use but not conversely.) Consequently clause (ii) cannot be interpreted as the doling out of gratuities to the less fortunate, and (iii) cannot be interpreted as unequal distribution of property rights. In fact (ii) talks about universal duties regardless of wealth, and (iii) about unequal distributions of jobs, in particular public offices, that not everyone is competent or willing to hold.

Private property is a legal not a moral category, for — *pace* Hospers (1982) — ownership is sufficient but not necessary to satisfy basic needs or legitimate aspirations. It has not always existed, and nowadays it does not exist in many social groups, such as primitive communities, cooperatives, and the state. Locke (1690) held that nobody has the right to own anything natural, because the earth is the common property of humankind; but that everyone has the right to "the fruit of his labours". Given the division of labor inherent in modern industry, and the fact that it uses natural resources — which belong by right to humankind — Locke's principle may be regarded as an *avant la lettre* justification of some sort of common ownership.

Wherever there is private property there is bound to be exploitation of some kind, from slavery to the self-exploitation of the self-employed farmer, craftsman, or trader. There is also likely to be violence in defense of one's property or in the attempt to expand it at the expense of others. (The success story of colonial empires, large corporations, and organized crime has a parallel though largely unwritten history of slavery, misery, death, ignorance, and other companions of the lack of property in a world ruled by the propertied.) Rivalry over property rights — on land, trade routes, and people — is likely to be the most powerful source of civil and international conflict.

What holds for private property in general holds in particular for the exclusive ownership rights to irreproducible goods, such as land and mineral deposits. Such rights are morally unjustifiable for a number of reasons, among them the following. (See e.g. Sandler G. 1977.) Firstly, as long as land is privately owned, the great majority of people are deprived from the space they need to live in good health. Secondly, landowners benefit effortlessly from the work of all those who live and toil around the former's properties. Thirdly, the real income of a worker is eroded by the high rent (usually one third of the salary) he must pay the landowner. Fourthly, unless property rights are curtailed by severe environmental protection regulations, the landowner is free to turn his piece of land into a toxic waste deposit that may poison air and water. Fifthly, the aesthetic enjoyment of nature is severely restricted. These five reasons suffice to indict the property rights on land. Land, particularly in an overcrowded world, should become the common property of humankind, only to be leased to firms, preferably cooperatives, as long as they make rational and socially beneficial use of it. (See Ch. 11, Sect. 3.)

So much for equality as a moral imperative. (For a vehement

praise of inequality see Mussolini 1932 p. 49.) We shall not devote a special section to fraternity because it is implied by equality. In fact, fraternity is necessary for genuine equality; equivalently, equality implies treating others as brothers or sisters. Therefore the famous three word slogan of the French Revolution (1789) is logically reducible to *Liberté, égalité*. Only, in our view the correct order is *Egalité, liberté*, for liberty can only exist among equals. Which takes us to the threshold of the next section.

2.3 *Freedom*

We adopt the distinction between *passive* freedom, or freedom *from* constraints, and *active* freedom, or freedom *to* act (*potestas agendi*). The latter implies the former because an agent cannot act freely unless he is free from certain constraints, either because these are absent or because he has overcome or skirted them. Freedom, whether passive or active, can never be total, for every agent is under a number of external (natural and social) constraints. See Table 6.3.

We characterize active freedom, or liberty, by means of

DEFINITION 6.3 A person x is

(i) *free* to do $y =_{df} x$ is capable of doing y & no external constraint prevents x from doing y & x possesses or can obtain the means to do y & it is possible for x not to do y;

(ii) *morally free* to do $y =_{df} x$ is free to do y & neither y nor the means to do y are incompatible with the basic rights and duties of x or anyone else, or with the Norm 6.2 of qualified equality.

TABLE 6.3. A sample of desirable personal and social, passive and active freedoms.

	Personal	*Social*
Passive	from poverty	from discrimination
	from disease	from economic exploitation
	from fear	from political oppression
Active	to love & be loved	to form a family
	to learn	to join associations
	to work	to attend schools

In any society everyone is free to perform certain actions but not others: a modicum of freedom is necessary for survival, and some restrictions on freedom are required to live in society. However, in a society of unequals the powerful are freer than the rest. Only in a society of equals do all enjoy the same freedoms because everyone has access to all the resources of society (Norm 6.2). In such a society the only limits to a person's actions are the freedoms of others, and his own ability and effort.

Because any freedom is the ability to exercise a right or perform a duty, there are as many kinds of freedom as kinds of right or duty. Hence, in agreement with Table 4.1 (Ch. 4, Sect. 1.1) we distinguish five families of freedom: environmental, biopsychological, cultural, economic, and political. See Table 6.4.

A good society guarantees freedoms of all five kinds, not just one or two. Why? Because, like rights and duties, freedoms make up a *system*, i.e. the effective exercise of one renders the others possible and conversely. For example, civil liberties are needed in order to work and, if necessary, fight for the other four freedoms. In turn, without environmental, biopsychological, cultural, and economic freedoms, there is little point in political freedom. Politics is not a goal in itself but a means for the exercise of nonpolitical freedoms. Political freedom has done little for hundreds of million underfed, underemployed and undereducated Indians. Freedom does not nourish, employ, or educate, for it is mainly a means: recall Definition 6.3. The goal is equality in enjoying life and helping live, and equality is the only effective means for securing freedom, which in turn is required to safeguard equality. Thus, far from being mutually exclusive, equality and freedom support

TABLE 6.4. Five types of moral freedom and one example of each.

Type	*Example*
Environmental	To make fair use of the environment.
Biopsychological	To procure the well-being of self and others.
Cultural	To learn and teach.
Economic	To work for a salary.
Political	To participate in governing bodies.

one another. (See Dworkin 1978, Ackerman 1980, Nielsen 1984, Nino 1984.)

Freedom is necessary for self-actualization: "Man does not want liberty in order to maximize his utility, or that of the society of which he is a part. *He wants liberty to become the man he wants to become*" (Buchanan 1979 p. 112). (Caution: No one has the right to become an antisocial person.) But freedom is also an end in itself, for being free "feels good", as anyone knows who has been deprived from it. So, freedom is a goal as well as a means.

But of course *complete* freedom is unattainable and undesirable because (*a*) we cannot escape natural laws, (*b*) we cannot relax all of the natural and social constraints, and (*c*) we must observe certain norms if we wish to belong to any social group. In short, all freedom is limited. And a good society only admits *socially responsible liberty*, i.e. liberty to do right not wrong. As Russell (1949 p. 25) put it, "too little liberty brings stagnation, and too much brings chaos".

We have taken it for granted that freedom, however limited, is really possible, not just a theological or philosophical illusion. Our justification for doing so is the bankruptcy of the externalist dogma that the outputs of a concrete system are solely determined by its environmental inputs regardless of its internal structure and of the processes that occur in it. (See Vol. 4, Ch. 1, Sect. 3.1.) Limited self-determination or spontaneity is for real, as can be gathered from such diverse fields as mechanics (inertia), optics (self-propagation), chemistry (self-assembly of atoms or molecules), biology (spontaneous neuronal discharges), psychology (creativity), and social science (rebellion).

In short we reject the deterministic denial of free will (hence of freedom). However, we do not accept the indeterministic equation of freedom with lawlessness or arbitrariness either: on the contrary, we hold that free will (hence freedom) is compatible with lawfulness. Moreover we hold that the rational exercise of freedom calls for the existence and knowledge of laws: in a chaotic (lawless) universe there would be no room for forecast, hence for planning, hence for rational action aiming at the exercise of any personal or social freedom.

To sum up, freedom is possible at least to a certain extent. It is also desirable, for only free persons can effectively exercise their rights and perform their duties. Moreover only free human beings can be distinct individuals (rather than numerals in a concentration camp), fully responsible for their own actions and omissions, and capable of feeling self-respect. But genuine freedom is only possible among equals.

2.4 *Justice*

We distinguish two concepts of justice: substantive or moral, and formal or legal. The latter is adherence to the law, whereas moral justice is adherence to some moral code. The difference between the two is brought home on reflecting that the elaborate and logically admirable system of Roman (actually Byzantine) law was grossly unfair to the majority of the population for enshrining slavery, whereas most primitive societies are (socially) just yet lack in an explicit system of formal justice. Obviously, only a legal order matching a moral code is morally binding. To think otherwise is not to understand that there may be unjust laws, and that the cause of moral justice involves repealing or updating such laws.

In recent times a number of moral and legal philosophers, notably Rawls (1971), have equated justice with fairness though without defining the latter and often subordinating justice to freedom — as if there could be genuine freedom without equality. We propose to characterize fairness through

DEFINITION 6.4 A person x is being treated *fairly* $=_{df}$ x is being treated exclusively on the strenth of x's rights and merits.

Put negatively: A person is given an unfair deal if some of her rights are ignored or if she is discriminated against because of her physical appearance, sex, social status, or ideology. According to the above definition fairness is not an independent variable (or a primitive concept), for when judging whether a given person is given a fair deal we take into account her rights (hence her basic needs and legitimate wants) and her competence or ability (hence her deserts).

In a rights-only perspective it is natural to equate justice with fairness. In our rights-and-duties perspective fairness, though necessary, is not sufficient for justice. The owner of a plantation may treat his slaves fairly, but slavery is an unjust social condition. We postulate that justice involves equality as well as fairness, and disguise this postulate as

DEFINITION 6.5 A person x is being treated *justly* $=_{df}$ x is being treated fairly & x enjoys the benefits, and carries the burdens, of qualified equality (Norm 6.2)

If this formula is adopted, it follows that moral justice implies both fairness and qualified equality. Moreover, in view of the Definition 2.5 of a just social structure, or social justice, the above definition entails

COROLLARY 6.4 Moral and social justice are the same.

According to this view the problem of designing a morally just society boils down to a sociotechnical problem, namely that of adjusting the distribution of benefits and burdens over a population in agreement with the available resources as well as with Definition 6.5.

A social distribution $\mathscr{D}$ may be construed as a collection C of items to be distributed, a respect, canon or independent variable V according to which the items are to be distributed, and a function δ, the distribution pattern, relating V to C. In short,

$$\mathscr{D} = \langle C, V, \delta \rangle, \quad \text{with} \quad \delta: V \to C.$$

Moral philosophers and sociotechnologists are interest in two distributions: those of benefits (or rights), and of burdens (or duties). We symbolize them as

$$\mathscr{D}_+ = \langle G, V_+, \delta_+ \rangle \quad \text{and} \quad \mathscr{D}_- = \langle B, V_-, \delta_- \rangle$$

respectively, where G is the total amount of benefits (e.g. goods and fringe benefits), B the total amount of burdens (e.g. tasks, taxes and community services) to be distriubted among the members of a community; V_+ and V_- are the independent variables or canons (such as need, ability, or a combination of the two), and δ_+ and δ_- are the corresponding distribution patterns or curves. To avoid focusing exclusively on either benefits or burdens, we may as well combine the two distributions into the ordered pair $\mathscr{D} = \langle \mathscr{D}_+, \mathscr{D}_- \rangle$. See Figure 6.2. In a just society everyone gets the living minimum required to meet his basic needs, whereas persons with above average ability earn more but may have more burdens than benefits: See Figure 6.2 (d).

The ideal of social justice, a powerful political leaven since mid-18th century, has been attacked on pseudopsychological and pseudoeconomic grounds. Thus Freud claimed that the sense of justice, far from being a noble moral feeling, is nothing but an outgrowth of envy and jealousy. And Kaufmann (1973) held that justice is the refuge of the "decidophobe", the heteronomous individual who wished others to make decisions for him — and that the notion of justice is a "decrepit idea" anyway. It goes without saying that neither of the two fantasies has any empirical support, and that neither has been taken seriously by the students of moral psychology: Recall Ch. 5, Sect. 1.1.

As for the pseudoeconomic arguments against the ideal of social justice, they have been put forth by such influential writers as Friedman (1962) and Hayek (1976). They boil down to a seemingly technical,

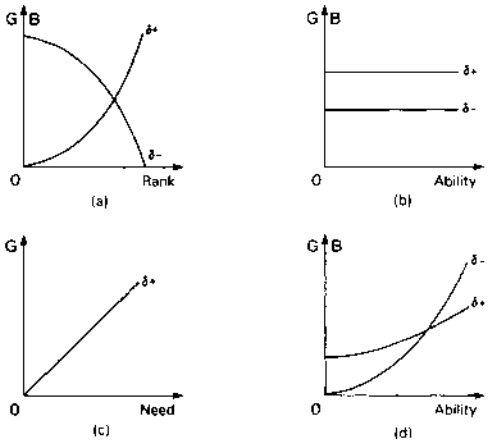


Fig. 6.2. Distributions of goods or rights (G) and burdens or duties (B). (a) In an aristocratic society the independent variable V is rank. (b) In a radically egalitarian society ability plays no role in distribution. (c) Distribution of benefits according to the formula "To each according to his needs". (d) Distribution of goods and burdens according to the formulas "Above the living minimum, to each according to his ability and effort", and "From each according to his abilities". $\delta_+ = \delta_-$ for persons with average ability who put in an average effort.

and a seemingly ethico-political objection. The former is that the pursuit of social justice involves governmental regulation and planning, which restrict the free market, which would in turn be the most efficient mechanism for the distribution of goods and services, as competition wipes out the inefficient (rather than the less powerful). There are at least three problems with this claim: (a) There are few if any perfectly competitive markets left, and this not only because of governmental intervention in favor of the underprivileged, but also because of the tendency of corporations to merge and expand, because when they go into bankruptcy they ask the state (hence the taxpayer) to bail them out, and because they often ask for subsidies (particularly to agriculture) or tariffs; (b) as a matter of fact few markets are in equilibrium, hence efficient: more often than not supply exceeds demand (as in the case of unemployment) or conversely (as in the case of high interest rates); (c) the market favors the rich and fails to serve the needier — to the point that most of the poor in Third World countries are marginal to the market and, when they do join it, e.g. to work on cash crops, they only

worsen their lot. (See e.g. Moore Lappé & Collins 1988.) In short, the market is neither fully efficient nor just. The problem of devising an economic order both efficient and just will be approached in Ch. 11, Sect. 3.

The ethico-political objection to the ideal of social justice is that the latter is incompatible with individual rights. To a systemist this view is just as mistaken as the orthodox communist opinion that social justice demands the sacrifice of freedom. The two ideas are mistaken because (*a*) the only way of conquering, maintaining or perfecting a just social order is by making use of certain individual rights, such as the right to participate in policy making, and (*b*) the only way individual rights can be protected is in the absence of privilege, i.e. in a society of equals, as we argued in Sect. 2.1. What is true is that (*a*) individual rights are threatened in a society where distributive justice is imposed by force rather than democratically and by self-management, and (*b*) social justice conflicts with private property rights — not with collective property rights though — as well as with the control of political power by the wealthy. (For further arguments in support of the interdependence of social justice, equality and freedom, see Miller 1976, Ackermann 1980, and Nielsen 1984.)

2.5 *Democracy*

The word 'democracy' is usually understood in a strictly political sense, i.e. as the form of government where all the leading political decision makers are elected, and every citizen counts as one elector and has the right to run for elective offices. Being restricted to the political sphere, this kind of democracy is consistent with glaring economic and cultural inequalities, i.e. with social injustice. Moreover it is usually representative rather than participatory, which facilitates the emergence of a class of professional politicians with interests of their own.

However, it is a serious mistake to underrate political democracy just because it is partial. For one thing, political democracy makes it possible to work for social reforms aiming at the extension of democracy to the economic and cultural spheres. For another, empirical research has shown that "Democratic institutions, if maintained for a relatively long time, cause some gradual reduction of income inequality, independent of level of economic development" (Muller 1988). Obviously, the contrapositive too is true: "a high level of inequality reduces a country's years of democratic experience" (ibid.). What holds for

economic democratization holds also for cultural democratization: political democracy is a means for both.

The extension of democracy, or self-management, to all the spheres of social life is of course *integral democracy*, which was defined in Vol. 7, Ch. 4, Sect. 4.2 as the freedom to enjoy all of the resources of society, as well as to participate in any social activities, subject only to the limitations imposed by the rights of others. More precisely, we propose to characterize it by means of

DEFINITION 6.6 A society s is an *integral democracy* $=_{df}$

(i) s is egalitarian (either in the radical or in a qualified manner);

(ii) every member of s is treated justly;

(iii) every adult member of s participates actively in the management of some economic, cultural or political subsystem of s; and

(iv) no subsystem of s is managed without popular participation.

In other words, an integral democracy is egalitarian, just, and participatory (or self-managed). Put negatively, in an integral democracy there are (unavoidable and sometimes desirable) inequalities in abilities, benefits, and burdens, but there are no privileges. That is, whatever inequalities there may be are to everyone's benefit, whence, by Definition 6.5, they are not unjust.

We may distinguish four kinds of privilege or unjust inequality, neither of which is supposed to be significant in an integral democracy: biological, economic, cultural, and political. Exceptional physical strength or skill is a privilege only if employed to bully or enslave others, not if put in the service of the weak or of public institutions. Wealth, particularly if inherited, is a privilege because it does not benefit everyone; and it threatens democracy because it enables its possessor to buy political and cultural clout. Cultural prowess is a privilege only if used to exploit or oppress. And the concentration of political power is a privilege because it occurs at the price of the political disenfranchisement of some or even most people; besides, it negates equality and fraternity, and it puts liberty and justice at risk. No such privileges, or injustices, are supposed to occur in an integral democracy. Or, if they do occur, they can be quickly corrected: like science and technology, integral democracy is self-correcting.

True, integral democracy is nowhere in sight. But this does not make it any less desirable. If equality, fraternity, liberty and justice are moral imperatives, as we argued in the preceding sections, so is integral democracy. In fact, equality, fraternity, liberty and justice can only be

had and retained in a society where everyone has the right and the duty to participate in the management of the economic, cultural and political resources of his society. In other words, equality, fraternity, liberty, justice and democracy hang together: See Figure 6.1. Hence to praise only one of them amounts to condemning all five.

Integral democracy solves the problem of how best to ensure impartiality in the distribution of benefits and fairness. Rawls (1971) proposed to solve this problem by pretending that people meet in a sort of constituent assembly (the "original position"), where they deliberate and make decisions behind a "veil of ignorance". This veil would guarantee that nobody knows anyone else, whence nobody could foresee what role anyone else is likely to play in society. But this is a misleading fiction because (*a*) society is not a collection of mutually alien individuals but a system held together by common interests and interpersonal bonds of various kinds, and (*b*) no assembly could be convened, let alone be made to work, unless every member of it knew some other members.

Impartiality can only be secured through active popular participation, so that everyone may defend his own interests without infringing on the rights of others. And justice can only be secured by combining popular participation (self-management) with knowledge (not ignorance) of the basic needs, legitimate aspirations, and abilities of the group members. Since such knowledge is only possible in comparatively small groups, integral democracy is necessarily of the grass roots or bottom-up kind. We shall return to this matter in Ch. 11, Sect. 4.

Let us close this section with a historical curiosity. In one of his rare moments of lucidity Hegel (1837 p. 37) proposed a utilitarian justification of participation. Indeed he stated that, if people are to become interested in something, they must be able to participate in it. Regrettably he did not draw the logical consequence, namely the need for participatory democracy.

2.6 *Summary*

Since moral problems can only be had and solved by the living, the most important moral problem of all ages is that of securing survival. Nowadays, to achieve this goal we must begin by realizing that it is morally wrong, as well as stupid, to continue the arms race, to go on polluting the environment, and to maintain the overexploitation of the natural resources, particularly the nonreproducible ones.

Next in line comes the problem of the unequal distribution of

benefits and burdens of all kinds: economic, cultural, and political. This is a moral problem as well as a social one if we adhere to the maxim *Enjoy life and help live*, for the plenty of the few derives from the destitution of the many. However, radical or simple equality won't solve the problem, for merit is to be rewarded if we wish to promote individual growth and social progress — which benefits all. The equitable solution is qualified egalitarianism, where the only tolerated inequalities are those that benefit all.

Equality suffices for both fraternity and freedom. On the other hand a divided society is not one of brothers and sisters, and in it only the powerful can make effective use of their rights or freedoms. However, no society can tolerate unlimited freedom. And a good society cannot admit the freedoms to exploit or to oppress, because exploitation and oppression are morally wrong and they lead to justified rebellion.

Equality, fraternity and freedom make justice possible, whereas in their absence justice is hardly possible. Integral justice embraces not only legal justice, or equality before the law: it also involves social or distributive justice. In turn, social justice is nothing but the equitable distribution of benefits and burdens, in such a way that everyone may meet his basic needs and legitimate wants.

Finally, if everyone is to be entitled to pursue her well-being, and is to have the duty of helping others attain or retain that well-being, then democracy is a moral and practical *must*, for in it alone everyone has a say in the management of society. But democracy, to be genuine, must be participatory and integral — economic and cultural as well as political. Purely political democracy can disguise economic or political privilege; purely cultural democracy is compatible with economic exploitation and political oppression; and purely economic democracy is threatened by political authoritarianism and cultural impoverishment. In short, if we wish everyone to be able to enjoy life and help others live, we must redesign and rebuild our societies so that they become integral participatory democracies.

So much for the moral norms we advocate and their ground in the values we support. Our next task will be to compare them to alternative values and morals and to analyze key moral concepts. That is, we now turn from morals to ethics.

PART III

ETHICS

CHAPTER 7

TYPES OF ETHICAL THEORY

The doctrine we have sketched in the previous chapters is of course only one among a large family of ethical theories — or rather more or less articulated doctrines. This family can be partitioned and subdivided in different ways, according to the viewpoint or *principium divisionis* one chooses. Every splitting divides the given family in an exhaustive manner into mutually exclusive classes, such as naturalism, consequentialism, and cognitivism, as well as their contradictories. For example, Hume's moral theory is naturalistic (or humanistic), consequentialist (in particular proto-utilitarian), and non-cognitivist (for being emotivist).

The following partitions are of particular interest to us: The anthropological (model of man), axiological (*summum bonum*), and epistemological (status of moral norms). The first viewpoint leads to the division of moral doctrines into religious and secular. According to the former man is God's creature, the basic moral norms are divine commandments, and the believer abides by them out of love for God — and to secure eternal bliss in the afterlife. On the other hand, according to the secular doctrines man is a natural being left to his own devices and busy pursuing his worldly (but not necessarily egoistic) interests. In turn, the family of secular theories may be divided into subfamilies, such as egoistic and altruistic, teleological and deontological, monistic and pluralistic, and so on.

The plurality of ethical theories, and even of types of such, is a clear indication of the plurality of underlying models of man. The adoption of a scientific model of man, one embracing the biological, psychological, economic, political, and cultural aspects, should help narrow the range of workable ethical theories. On the other hand the adoption of a nonscientific and one-sided model of man — e.g. as being only or primarily *homo oeconomicus*, *politicus*, or *loquens* — is bound to lead to a myopic and impracticable ethical theory, such as Hobbes's or Kant's.

An axiological partition of ethical doctrines focuses on what each of them regards as the supreme good. Table 7.1 exhibits some of them.

From an epistemological viewpoint ethical doctrines can be divided

TABLE 7.1. The primary and secondary values of some ethical doctrines in alphabetical order.

Doctrine	*Primary values*	*Secondary values*
Agathonism	Everybody's well-being	Peace, environmental protection, equality, freedom, justice, democracy
Christianism	God, afterlife	Faith, hope, charity
Contractualism	Individual interests	Liberty, legal justice
Eudemonism	Personal happiness	Justice
Hedonism	Pleasure	Pleasure
Individual utilitarianism	Happiness	Liberty, legal justice
Libertarianism	Liberty	Legal justice
Negative utilitarianism	Individual interests	Not harming
Secular deontologism	Duty to fellow man	Justice
Socialism	Equality	Well-being, community service
Social utilitarianism	Greatest good of greatest number	Liberty, justice
Stoicism	Peace of mind	Devotion to public interest

into cognitivist and noncognitivist. The consequentialist (or teleological) as well as the nonconsequentialist (or deontological) views are cognitivist for they regard moral precepts as pieces of knowledge and therefore learnable and analyzable — and perhaps empirically testable as well. On the other hand moral intuitionism and emotivism, both of which are noncognitivist, have no use for either learning theory or philosophical analysis: The former because it regards moral norms as self-evident, the latter because it takes them to be only expressions of likes and dislikes.

There are two ways of looking at ethical theories: with regard to method and with regard to content. The content of a moral philosophy is of course the collection of moral principles it recommends, whereas its method is the way it proposes to obtain and justify those principles. Though often confused with one another, content and method are mutually separable: It is possible to assent to one of them and not to the other. For example, one may adopt the principle "Thou shalt not kill" without claiming that it was dictated to Moses by Yahweh or trying to defend it alleging that life is sacred. Conversely one may agree with the utilitarians that the worth of moral principles is to be gauged by the

consequences brought about by their application, without subscribing to the Principle of Utility.

In the first part of this chapter we shall deal with some questions of method, in the second and third with the content of some influential moral philosophies. We shall have to say something good about nearly every one of them, except for moral nihilism or anarchism ("Anything goes") and naive or radical egoism. However, none of the received views fully satisfies us, this being why we have introduced our own view in the preceding chapters.

1. MATTERS OF METHOD

1.1 *Religious and Secular Doctrines*

Every religion includes a morality but not conversely. In fact, there are non-religious ethical systems, such as Confucianism and Stoicism, which have guided millions of virtuous people over more than two millennia. History shows that religions, though accompanied by morals, have no moral sources: "men have always received their gods from tradition without demanding them to exhibit morality certificates or to guarantee the moral order" (Bergson 1932 p. 217).

The hope of eternal life and the fear of eternal damnation are neither necessary nor sufficient to keep people on the straight path. While they have inspired a few genuine saints, such as Francis of Assisi and Desmond Tutu, they have only too often been used as excuses for killing, torturing or dipossessing infidels, or for defending class privileges or even fueling territorial expansions. The Islamic jihads from Muhammad to Khomeini, the Christian crusades from the 11th century to General Franco's, and the European sacking and oppression of four continents since 1492, are loud and clear testimonials to the potential of religion for evil. Maybe the same atrocities would have been perpetrated without the help of any religion, but the point is that, with but a few individual exceptions, their perpetrators counted on the blessing of organized religions.

There are several reason why religion is not a suitable basis for morality. Firstly there is the problem of logical consistency and empirical support. Take for instance the very concept of God as omnipotent, omniscient and merciful, shared by Christians and Muslims. These three attributes cannot be jointly satisfied. For, if God is indeed omnipotent and omniscient, then he must also be wicked, as only an

evil being could have created (or tolerated the emergence of) millions of biospecies only to let them become extinct, as well as remain indifferent to human suffering. If on the other hand God is good and caring, he must have very limited powers as well as very restricted knowledge. The former because he seems to do little if anything to alleviate the misery of his creatures, the latter because he designed them with such serious flaws that no biologist would have tolerated. Even granting that such flaws could have been planted by a possessive god just to try their victims's faith, there is the problem of life after death. For one thing, we have known for quite a while that all mental functions cease on brain death. For another, no dead has yet come back to life to tell us what the afterlife is like.

Secondly, by modern moral standards all religions have serious moral flaws. Thus Hinduism condones the caste system, which is unjust and cruel. So is the dogma of eternal hellfire, because it holds that the damned do not improve by being punished, hence are beyond redemption: They are just as wicked after a million years of hellish torture as before. The Augustinian and Calvinistic doctrine of predestination is even worse, for according to it God himself chooses those who are to be virtuous, rather than electing the virtuous. Even Catholicism and Islam, which promise the reward of virtue, are nothing but variants of egoistic hedonism, for (*a*) holding that virtue, rather than being its own reward, is a means to eternal bliss, and (*b*) not being interested in public morality. (See Albert 1979 pp. 194 ff.)

Thirdly, even assuming that some of the old religions were effective to maintain the cohesion of certain barbarous tribes, they could not possibly have foreseen any of the human survival issues touched on in Ch. 6, Sect. 2.1. In particular human fertility, which was important several thousand years ago, when humans were few and scattered, has become a major threat to the survival of humankind. Therefore in opposing birth control the Catholic Church is worsening a bad situation. This is not to deny that in recent times this same church has worked for world peace and denounced social injustice. (See the encyclical letters "Populorum progressio" of 1967 and "Sollicitudo rei socialis" of 1987.) This departure from tradition is certainly welcome, but it comes in the wake of century-old lay movements and it is neither consistent, radical nor vigorous enough. Nothing short of a Second Reformation could transform Christianity into a good and efficient crusade for solving the current world crisis.

Fourthly, because of its belief in supernatural entities and miracles,

and its reliance on revelation and dogma, religion is perpendicular to science, not parallel to it. (Recall Vol. 6, Ch. 14, Sect. 4.2.) Given that scientific research, unlike religious belief, is the intellectual engine of modern culture, as well as the basis of contemporary technology, religion cannot serve as the foundation for anything modern. In particular, it cannot constitute the foundation of any ethical doctrine compatible with science. (For further criticisms of religion from a scientific angle, as well as arguments for a secular ethical system, see Kurtz 1988, the journal *Free Inquiry*, and the publications of the International Humanist and Ethical Union.)

Our society needs a secular morality and a scientific ethics because our moral problems have become so complex that they cannot be solved except with the help of science and technology. Moreover, unlike a primitive tribe, which can make do with a list of don'ts designed to avoid the tribe's breakdown, our society needs a fairly complex ethical system helping us to avoid the extinction of humankind.

In conclusion, it would be dishonest to deny that some religions do contain a few admirable moral precepts, such as the Golden Rule and the injunction to behave kindly toward our neighbors. But any right secular moral code will contain as much and more. And instead of blunting our understanding with bland faith and myth it will stimulate people to argue about moral norms and to seek their improvement in the light of new circumstances and fresh knowledge. Still the religious/secular divide, though crucial from the ontological and epistemological viewpoints, is morally far less important than the egoism/altruism divide. Any religious code leading us to act in an unselfish manner is by far preferable to any secular but selfish moral philosophy — preferable, that is, from a moral point of view.

1.2 *Monism and Pluralism*

It has been proposed that value theories and ethical theories be divided into monistic and pluralistic (Broad 1930, Brandt 1979). Axiological monism holds that there is a single *summum bonum* for everyone, whereas axiological pluralism maintains that there are several independent types of good. Similarly ethical monism lays down a single maximal moral precept, to which all others are subordinated, whereas ethical pluralism holds that there are a number of mutually independent moral norms.

Actually the monism/pluralism distinction does not exhaust the

variety of value theories and ethical theories, for there are also hybrid theories. For example, moderate axiological monism — the case of our own axiology — will admit that, although everyone has the same primary and secondary values for having the same basic needs, different people are bound to have different higher order (tertiary, etc.) values, for having different wants or desires. Likewise moderate ethical monism — again, the family to which our own theory belongs — will admit that, although everyone has the same basic rights and duties, hence the same basic moral code, the members of special groups have, in addition, special rights and duties, and therefore special moral norms.

The difference between radical pluralism and moderate monism, whether axiological or ethical, is that whereas pluralism claims that there must be a plurality of mutually independent principles, moderate monism (or moderate pluralism) posits a set of principles united by a single basic principle. See Figure 7.1. In short, we have the following tripartite division of the family of value theories and ethical theories:

Radical monism: A single principle.

Moderate monism (or *moderate pluralism*): Many principles with a single over-arching norm.

Radical pluralism: Many mutually independent principles on the same footing.

For example, utilitarianism is axiologically pluralistic but ethically monistic. Indeed, it posits goods of many kinds, material and cultural, individual and social, but it postulates a single over-arching moral principle, that of utility maximization. This ethical unity encompasses a large axiological diversity, for the utility principle is of the form "For every x, if x is a good, then maximize the utility derivable from x". Likewise our supreme moral maxim, "Enjoy life and help live", sum-

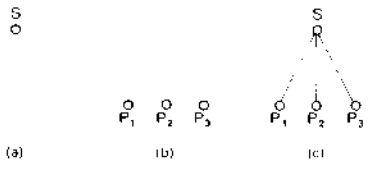


Fig. 7.1. (*a*) Radical monism: A single supreme principle S. (*b*) Radical pluralism: A plurality of mutually independent principles P_1, P_2, P_3, . . . (*c*) Moderate monism (or pluralism): A set of principles subordinated to a single supreme principle S.

marizes an uncounted number of precepts of the form "If you either need or legitimately want x, reach for x; and if others need or legitimately desire y, then help them get y". In both cases the ethical unity covers an axiological diversity.

However, in the case of our ethical theory only the universal part, i.e. the set of norms that everyone ought to abide by, is unitary. Different social groups have different special rights and duties, hence they may legitimately superimpose their own morals on the universal morality as long as they are consistent with the latter. For example, the moral code of the teacher differs somewhat from that of the engineer, not because either of them has special privileges but because each of them has special rights and duties in addition to those common to all citizens.

In each society we have to do then with a whole familiy of special moral codes, one for each social group, but all of which have a substantial intersection centered in the norm "Enjoy life and help live". See Figure 7.2. Therefore our ethical system is two-tiered: it is *monistic as regards humankind, pluralistic as it regards the various human groups*: youngsters and oldsters, normals and handicapped, manual workers and intellectuals, clerks and managers, and so on. Our philosophy is then moderately monistic (or if preferred moderately pluralistic) both in axiological and ethical matters.

The logical advantage of a radically monistic ethical doctrine is that its consistency is obvious. On the other hand moderate monism and pluralism are bound to have consistency problems in articulating their principles into a coherent whole. However, all ethical doctrines pose consistency problems in application, for none can possibly foresee in all detail the conflicts between the rights and duties of every single person,

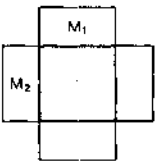


Fig. 7.2. Two codes, M_1 and M_2, with a common core: the central square. Example: $M_1 = \{\ulcorner$Enjoy life and help live$\urcorner$, $\ulcorner$Be generous as well as demanding with your students$\urcorner\}$, $M_2 = \{\ulcorner$Enjoy life and help live$\urcorner$, $\ulcorner$Be helpful and fair as well as strict with your employees$\urcorner\}$.

or even of every single social group. For example, a teacher's duties may conflict with some of his students's rights or at least wishes; similarly with the physician/patient, manager/employee, civil servant/citizen, and uncounted other pairs. All such conflicts and many more are sources of moral as well as practical problems; and the solution to some of them calls for deliberation and perhaps research too. The fanatic, who worships single-mindedly a single good and a single norm, is spared such moral problems. But he is unlikely to enjoy life and is sure to make other people's lives hard or even impossible. (See Hare 1963.)

Radical axiological and ethical monism are incompatible with individual liberties and a fortiori with democracy, for holding that everyone values or ought to value the same items and behave in the same way. On the other hand radical axiological and ethical pluralism are compatible with individual liberties but not with democracy, for they encourage self-indulgence, which is the enemy of social responsibility, without which democracy cannot work.

In an integral democracy (Ch. 6, Sect. 2.5) every adult person is supposed to be free to choose his values and pursue his own goals as long as he does not stand in the way of other people's basic rights and as long as he performs his basic duties. Since such rights and duties are common to all able-bodied human beings, pluralism must be moderate, not radical, if it is to be compatible with integral democracy.

1.3 *Absolutism and Relativism*

Ethical absolutism holds that moral norms are absolute, i.e. cross-cultural and independent of circumstances. The natural law school, Kant, and the moral intuitionists, such as Moore and Ross, are absolutists. On the other hand ethical relativism holds that moral codes are (*a*) culture-bound and (*b*) functional, i.e. adapted to the needs of the societies that adopt them, whence (*c*) no moral code is superior to any other. Ethical relativism is popular among the functionalist social scientists — whose popularity is declining — and it has been adopted by the philosopher P. Winch (1958) under the guise of "contextual rationality".

There is something to be said for and also against each of these extremes. Firstly, as a matter of anthropological and historical record absolutism is false whereas relativism is true: in fact, value systems and moral codes are culture-bound. Secondly, absolutism is right in holding that certain actions are morally right or wrong in all cultures at all

times. Obvious examples of the former: helping children and the weak, and solving conflicts by peaceful means. Obvious examples of universal infamies, even if not always qualified as such: torture, massacring the innocent, and depriving a man of his legitimate means of livelihood.

Absolutism makes any deviation from a given moral tradition into a crime, for regarding that tradition as suprahistorical. On the other hand relativism condones any moral wrongdoing as long as society admits it. Thus if Winch (1958) were right it would be impossible to condemn the Nazis and other mass murderers for they were playing their own "language games" according to rule and in the perspective of their own *Lebensform* or lifestyle.

The root error of ethical absolutism is its belief in an extraordinary source of morals, such as God or infallible intuition, which would render moral norms impregnable to argument and experience, as well as totally independent of extenuating or aggravating circumstances. The root error of ethical relativism is its confusion of morals with *mores*, which confusion may lead to moral turpitude. The absolutist follows blindly the dictates of his moral code without pausing to think of roots or consequences. The relativist follows blindly the dictates of custom without questioning its moral status. The absolutist is a prig, the relativist an opportunist. And both are ethically conservative, though for different reasons.

Our own view is neither absolutist nor relativist but contains elements of both extremes. In fact we share the absolutist's conviction that (*a*) right is right is right even if not so acknowledged in a given society, and wrong is wrong is wrong even if condoned by a given society; (*b*) not all cultures and moral codes are mutually equivalent, whence (*c*) there is objective moral progress in certain periods, and objective moral decadence in others. And we share the relativist's view that morals coevolve with society. But we do not share his belief that every moral code is functional in the sense that it facilitates social life. A moral code obstructs social life if it is obsolete (i.e. if it has not accompanied social evolution) or if it entrenches privilege.

To sum up, we opt for *moderate relativism*: relativism for believing that there are many different and viable moral codes, and moderate for holding that they have a nonempty intersection, i.e. a core of universal or cross-cultural norms.

1.4 *Objectivism and Subjectivism*

Ethical objectivism holds that some moral codes are objective in the

same sense as some values are. On the other hand ethical subjectivism maintains that morals are just as subjective as values: that they are either an expression of individual feeling or a set of conventions as groundless as dress conventions. Objectivists believe, and subjectivists disbelieve, that there are moral facts.

An argument for objectivism is that when we argue about certain human actions we judge them to be right or wrong regardless of their agents — though not in independence of every moral code. An argument for subjectivism is that there is no such thing as right or wrong in itself, in total independence of every moral judgment and every moral norm.

We agree with objectivism that there are moral facts, and with subjectivism that these are not in the natural order of things, because morality is an artifact. But so are computers and all other human-made things and processes: they are quite objective without being natural. A moral norm that matches an objective human need or legitimate want is just as objective as the society that adopts or rejects the norm. Such a norm is objective for having biological, psychological or social roots and functions, even though it has no physical existence. A moral norm of this kind is very different from the commandment to worship a deity or to obey a tyrant. Since a moral norm of that type is objective in some sense, so is the (moral) fact it refers to. Thus mutual help is a fact, and so is murder. Only, besides being social facts, the former is right and the latter is wrong: they are facts with a moral status.

The preceding helps answer the question whether moral principles are discovered or invented. Some are invented, though rarely as deliberately as other artifacts. (Recall Ch. 5, Sect. 3.1.) Others are discovered by moral reasoning. Thus once we accept that killing is wrong, we are committed to admitting that legal killing (e.g. capital punishment and military aggression) is wrong as well.

Ethical objectivism is dangerous only if mistaken for absolutism, or the thesis that morals exist in themselves, for absolutism is impregnable to criticism and empirical tests. On the other hand ethical subjectivism is always dangerous, for it entails irrationalism and anarchy (Fishkin 1984). In fact, if moral norms are entirely subjective then it is impossible (*a*) to argue about them, i.e. to propose and evaluate reasons for or against them, and (*b*) to work for a consensus, or at least a substantial majority, to uphold or reform them.

The advantage of (moderate) ethical objectivism over its alternatives can best be appreciated by discussing some examples. Take the Golden

Rule, which comes in at least two versions, one positive, the other negative. The former reads: "Do to men what you wish men to do to you" (*Matthew* 7:12). The negative version reads: "Never do to others what you would not like them to do to you" (*Analects of Confucius* xv. 23). However admirable, neither covers all possible cases, for what one wishes done to oneself may not be agreeable to others, or conversely. A classical example is surgery. I wish to have my hand operated on because it needs repairing, but I do not wish everyone else to undergo this operation, because most people do not need it. Another example is euthanasia. I do not wish to be subjected to euthanasia just yet, but wish that those who clamor for it, for finding life unbearable, be granted their wish. A third example: Drinking pals comply with the rule, for they offer one another drinks that are not good for them. (By the way, a trouble with the Golden Rule in the above versions is that it concerns *wishes* rather than either basic needs or legitimate aspirations. The maxim "Enjoy life and help live" does not have this defect and is far easier to state, understand, and apply. If only for this reason, the Golden Rule cannot — *pace* K. Baier (1966) and others — be taken as the basic principle entailing all of the prescriptions and proscriptions we need. Besides, the rule is highly ambiguous: see Myers 1986.)

In conclusion, we opt for *moderate objectivism*: objectivism because we believe in some objective values, hence in some objective rights and duties, whence in the existence of objectively right and objectively wrong facts; and moderate because of our insistence on *some* rather than *all*. Once again, we have taken a middle road, this time between radical objectivism (the companion of absolutism) and radical subjectivism (the companion of relativism). However, we draw a difference between our rights-and-duties ethics and its rivals, claiming that the former, though neither perfect nor final, is more objective than its rivals for having a firm biological, psychological and social foundation.

1.5 *Emotivism, Intuitionism and Cognitivism*

Ethical cognitivists assert, and noncognitivists deny, that moral principles have a cognitive status ("content") and can therefore be known, analyzed, tested, and altered just like scientific hypotheses. Aristotle, Spinoza, the utilitarians, C. I. Lewis, the present writer and uncounted others have sided with cognitivism. On the other hand Hume, some phenomenologists (e.g. Scheler), neopositivists (e.g. Ayer) and all of the intuitionists (e.g. Ross) belong in the opposite camp.

Noncognitivism is split into emotivism and intuitionism. The former

is the view that moral judgments are nothing but expressions of feelings or attitudes, and that their sole function is to goad others to do as we do. (See Stevenson 1946.) We would approve of what we like and disapprove of what we dislike, to the point that one might be tempted to define "right" as that which is generally approved of, and "wrong" as what is generally disapproved of. But this is putting the trailer before the car. In fact, rational people, when given the chance of thinking before acting, start by evaluating a proposal for action, and they do so in light of their value system and moral code as well as in light of the information available to them. They approve or disapprove of the proposal, or of the action, according as it has passed or failed to pass certain moral and prudential tests. Nor is it true that disapproving of something is the same as desiring that it not be done (as proposed by Pollock 1986). Indeed there is such thing as desiring that somebody one hates does what we disapprove of, so that we may be justified in our hatred.

Furthermore, moral norms do not spring directly from moral feelings but are adopted by society, or at least by its leading members, only if they help reinforce behavior of certain types: otherwise they may be proposals but not norms. Since genuine norms rule actual behavior, they are objective even if they are inadequate. And, being objective, they can be investigated empirically. (Recall Sect. 1.5.) As a matter of fact they are being investigated in this manner by psychologists, anthropologists, sociologists, and historians. (Recall Ch. 5.)

This is not to deny that moral judgments have the emotional root and the pragmatic function that emotivists have attributed them: we have admitted as much and more in Ch. 4, Sect. 3. Thus when someone says that he strongly approves of loyalty, he is likely to express a deep feeling and at the same time he attempts to persuade others to be loyal. Without moral feeling we would attend more to the prudential than to the moral. Still, it is one thing to state that a moral judgment or action is motivated by a moral feeling, and another to deny that it can be vindicated or condemned on rational or empirical grounds.

Ethical intuitionism is the view that all moral principles are self-evident and therefore in no need of rational or empirical justification or even examination. Being an epistemological or methodological opinion, ethical intuitionism can be coupled to any substantive moral code, whether egoist or altruist.

Every ethical doctrine that is held dogmatically qualifies as intui-

tionist. However, there are degrees of dogmatism, hence of dangerousness. The least harmful version of intuitionism is the view that all humans are born with, or come to acquire, the same moral intuitions. This universalist thesis is inconsistent with ordinary experience and with psychology and social science, but at least it is not coupled to an ideology. The most harmful version of intuitionism is the view that in every epoch there is a handful of exceptional individuals, leaders of their herds, who are visited by moral illumination, and whom the masses ought to follow. This elitist intuitionism was actually held by some philonazi philosophers. (See Kolnai 1938.)

We do have moral intuitions, just as we have intuitive knowledge of other kinds. However, they are nothing but our most ingrained moral beliefs: those we have imbibed in our young days. They are so ingrained or internalized that we do not subject them to criticism except at times of crisis. Because moral intuitions are held uncritically, the appeal to moral self-evidence in moral reasoning is irrational and therefore dangerous in practice. In short, moral intuitionism is just as untenable as moral emotivism. (For further criticisms see Bunge 1962b and Brandt 1979.) We must hold on then to moral cognitivism, though without ignoring that there are moral feelings and intuitions.

1.6 *Consequentialism and Deontologism*

A *consequentialist* moralist judges all actions and all rules by their consequences: to him the former are right only if the latter are good. A *deontological* moralist judges a state of affairs good only if it results from a right action. The consequentialist disapproves of rules of conduct that bring about the destruction of his values, whereas the deontologist is ready — or so he claims — to sacrifice his values at the altar of his moral norms. Shorter: Whereas for the consequentialist goodness precedes rightness, for the deontologist the converse relation holds. Hence whereas for the former axiology precedes ethics, for the latter it is the other way round. Catholic and Islamic ethics, as well as utilitarianism and our own system are consequentialist, whereas Stoicism and Kantianism are deontological.

Deontological theories are absolutist and conversely; hence they are open to the same objections that we raised against absolutism in Sect. 1.3. In addition we find the following flaws in it. Firstly, deontologism is inapplicable, for if we are told to further the interests of X we must estimate the possible consequences of our actions on the welfare of X.

It may be argued the Kant himself was a crypto-consequentialist, for by stating the Categorical Imperative (which involves egalitarianism) and sympathizing with the French Revolution, he must have believed that both were good things.

Secondly, if taken literally deontologism is unrealistic and therefore inconsequential for (*a*) overlooking moral feelings and (*b*) ignoring the lesson of learning theory, namely that we learn the basic patterns of social behavior on the strength of the favorable or unfavorable outcomes of our actions rather than by reading Seneca or Kant. (Incidentally, Kant himself was unable to live up to his maxim that we ought to do our moral duty regardless of consequences. For example, he obeyed his king, Friedrich Wilhelm II, who had written him by hand on October 1st, 1794, ordering the Herr Professor to stop distorting and debasing the Christian doctrine if he wished to avoid *unangenehme Verfügungen*. For another, Kant did not recognize his illegitimate child. This is not to be construed as an *argumentum ad hominem* but as evidence for the thesis that deontologism is impracticable.)

Thirdly, deontologism is neither rational nor virtuous: "To do anything except for the sake of *some* expected good would be sheer irrationality or perversity" (Lewis 1969 p. 182). Rational and responsible people do not follow blindly any rules regardless of consequences: they try and foresee and evaluate the latter before taking action, paying attention to their own interests and those of others, to the means available to them, to the opportunity, etc. In short, they combine morality with prudence. Any alternative mode of action is at best inefficient, at worst reckless.

Fourthly, the deontologist is forced to ignore the circumstances of the people he deals with. By rigidly adhering to his maxims he will have not room for compassion or even for extenuating circumstances. He will insist on the cruel dictum *Dura lex, sed lex*. He may not distinguish between deliberate murder and involuntary manslaughter, or between malicious lie and white lie. To him everything is either black or white, whereas the real world is chromatic.

Fifthly, the deontologist is dogmatic, for he has no way of finding out which sorts of action are right and which are wrong except by reference to his own moral code. He must claim that the latter is either a priori (rationalism) or self-evident (intuitionism). By contrast, the consequentialist will ask himself 'Will my principles work in real life? Will they

make any difference for better or worse?'. He can use reasoning and experience to correct and update his morals. This is a metaethical argument for consequentialism.

Any of the above reasons should suffice to reject deontologism. However, this is no reason to adopt *naive* or *radical consequentialism*, which holds that the end justifies the means, i.e. that all is well that ends well. Indeed, this short-sighted version of consequentialism is open to at least the following objections. Firstly, naive consequentialism is self-defeating for focusing on the value of the end or goal state, as if the process leading to it did not matter, whereas in fact it does: Recall Ch. 3, Sect. 3.4. (For example, usually terrorism harms national liberation and social justice movements.) Secondly, if an agent employs consistently evil means to attain a good end, he is bound to become callous and corrupt, and even to forget his original goal altogether. (This is the case of the guerrilleros who become bandits.) Thirdly, in certain cases giving up basic principles may be so demoralizing, hence destructive in the long run, that keeping them regardless of consequences may be preferable.

In short, when faced with moral problems we must reckon with principles, real situations and feelings as well as with possible consequences. Shorter: naive or radical consequentialism is inadequate. Since deontologism does not work either, we must opt for a *tertium quid*, namely qualified or moderate consequentialism.

Qualified or *moderate consequentialism* requires that the means employed to attain a goal do not harm others without adequate compensation. Our ethical theory exemplifies this kind of consequentialism, whereas utilitarianism is an instance of naive or radical consequentialism. The difference between the two may be formulated as follows in the case when the (sufficient) means m, the goal g and the side effect s are related by the regularity (law or rule) *If m, then g and s*, and all of these items can be evaluated quantitatively relative to an agent a.

Naive consequentialism (e.g. utilitarianism)

If $m \Rightarrow g \wedge s$ (law or rule) and $V(g, a) > 0$ (value judgment), then $V(m \Rightarrow g \wedge s) > 0$ regardless of the value of m for a or anyone else.

Qualified consequentialism (e.g. our own theory)

If $m \Rightarrow g \wedge s$ (law or rule), $V(g, a) \gg V(m, a), V(s, a)$ (value judgments) and, for every person x other than the agent a, either

(i) $V(m, x), V(g, x), V(s, x) \geqslant 0$, or

(ii) x receives from a a compensation c such that $c \geqslant V(m, x)$, $V(g, x)$, $V(s, x)$, then $V(m \Rightarrow g \wedge s) \geqslant 0$.

The most obvious advantage of consequentialism is that it invites feedback, thus allowing for the updating of information and the correction of principles. Indeed, the consequentialist will arrange his coupling with the system upon which he acts (which may be himself) so as to receive feedback signals informing him about the extent to which his actions have attained the preassigned goal, as well as about the kind and intensity of the (intended or unintended) side effects. See Figure 7.3. And the most obvious advantage of the moderate version of consequentialism is that it avoids Machiavellianism. (For recent discussions of consequentialism see Scheffler Ed. 1988.)

1.7 *Individualism, Holism, Systemism*

Earlier in this Treatise we distinguished three alternative approaches to the study of society: individualism, holism (or collectivism), and systemism (Vol. 4, Ch. 1, Sect. 4.2, and Vol. 7, Ch. 4, Sect. 1.1). Since ethics is about right and wrong social behavior, each of the preceding approaches has its ethical counterpart. The distinguishing features of these approaches can be summarized as follows.

Individualistic or egocentric ethics:

I1 Individuals are or ought to be autonomous, i.e. fully self-determined.

I2 Individual values, particularly liberty, are higher than social values, particularly social justice.

I3 Individual rights take precedence over social duties.

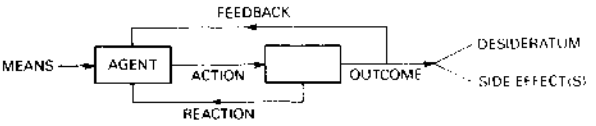


Fig. 7.3. The means-end relation. The agent, if in possession of the suitable means, acts on his target system or patient (possibly himself) causing it to output the desired effect together with some side effect(s). If he is a consequentialist, he monitors the changes in the patient so as to modify his action if necessary. On the other hand the deontologist proceeds headlong without considering the outcome; he passes over the feedback loop.

I4 Society is only a means for the protection of individual rights.

I5 Morals and the law are made for the individual.

I6 Whenever there is a conflict between individual and social values, the former take precedence.

Collectivistic or sociocentric ethics

C1 Individuals are heteronomous, i.e. other- determined.

C2 Social values, particularly stability, are higher than individual values, particularly liberty.

C3 Duties toward social organizations take precedence over duties toward individuals, and these take precedence over individual rights.

C4 The individual is only a means for society.

C5 Morals and the law are made for society.

C6 Whenever there is a conflict between individual and social values, the latter are to prevail.

Systemic ethics

S1 Individuals are in part autonomous, in part heteronomous.

S2 Individual and social values determine each other; in particular, equality and fraternity (mutual help) render liberty and justice possible, and conversely.

S3 Rights imply duties and conversely.

S4 The individual can only exist in society, and the latter should be so designed as to make it possible for everyone to meet her basic needs and legitimate aspirations.

S5 Morals and the law are made for the individual-in-society.

S6 Whenever there is a conflict between individual and social values, the latter are to prevail; however, social organizations should be redesigned so as to diminish the frequency and intensity of such conflicts.

Moral nihilists, hedonists, libertarians and contractualists are ethical individualists. Confucius, Kant, Hegel, Durkheim, and Lenin are ethical collectivists. Aristotle, Spinoza, Hume, Bentham, Rawls and Rescher come close to systemism, for they reject selfishness and admit that the public good takes precedence over individual interests, while emphasizing everyone's right to well-being or even happiness.

Both individualist and collectivist ethics are based on obsolete conceptions of society. The former is scientifically untenable because

social scientists do not study individuals but social groups: society is not an aggregate of mutually independent atoms but an "organization of organizations" (Miller 1976 p. 303). Besides, empirical research has refuted the individualist claim that only private interest can motivate involvement in collective action organizations: it has shown that public goods can powerfully motivate such involvement out of feelings of solidarity, altruism, and the sense of duty (Knoke 1988). And the collectivist approach too is inadequate because as a matter of fact social scientists analyze every society into its subsystems, and they take individual needs and interests into account.

Individualists have rightly pointed out that social and ethical holism, or collectivism, crushes the individual. However, they overlook the fact that, wherever individualism prevails, most individuals are crushed by a privileged minority. Moreover, by placing self-interest above the interests of others, individualism is the dissolvent ideology *par excellence*. (A dissolvent ideology is more destructive than a subversive one, for the latter aims at replacing one social order with another, whereas a dissolvent ideology contributes to weakening or even cutting the links or bonds that keep all societies together.)

Individualism is morally corrosive as well as socially dissolvent for, as de Tocqueville (1835) pointed out, it saps the virtues of public life and in the long run it attacks and destroys all others. In fact, by allowing individuals maximal freedom and by minimizing their responsibility to others, individualism tolerates or even encourages the exploitation and oppression of the weaker members of society. Therefore the rise of unbridled individualism in any society is both an indicator and a cause of social disintegration: of the loss of the sense of community and social responsibility. In a cohesive community, where everyone cares for others and gets the help of others, and everyone participates in collective actions, individualism is regarded as sinful.

In short, both individualism and collectivism are scientifically and morally untenable, even though each focuses on one of two real poles: the self and the community. Systemism combines the good and avoids the bad points of those two extremes, for it joins the concern for the individual with that for the social organizations that make individual survival possible and desirable. In the systemist perspective the question 'Which is prior, the individual or society?' is ill-conceived, for there are no such things as the isolated individual "in a pure state of nature"

or the society hovering above its members. For the same reason private and social morals, though distinguishable, are inseparable (Ch. 6, Sect. 1.1). Last, but not least, unlike individualism and holism, both of which condone the economic, cultural or political dictatorship of the stronger, systemism goes well with integral (biological, economic, cultural, and political) democracy.

The differences between systemism and its rivals are perhaps best seen when applied to special problems. Take first the autonomy/heteronomy question, with regard to which systemism adopts a middle stand (recall *S1*). Individualism exaggerates autonomy to the point of ignoring that voluntary association is one of the basic constructive human impulses, hence one of the basic human rights. In joining with others an individual not only helps them but also hopes to get benefits resulting from mere togetherness or from collective action, outweighing his partial loss in personal autonomy. In so doing he behaves like a systemist — even while joining the Individualist Party. Moreover, if he joins a democratic organization, the individual has the chance of participating in its decision making process, hence of influencing others while at the same time gaining in social skills. As for the collectivist claim that we are all heteronomous, it ignores the fact that people, especially when young, are normally active, curious, and creative, and sometimes rebellious as well. Only well-orchestrated oppression or utter poverty can render people passive and submissive. In short, normal adults are neither fully self-reliant nor totally dependent.

Our second example is blameworthiness. Individualists hold that only individuals can be blamed or credited for whatever they do, whereas holists blame "the system". Consequently for the individualist moral and social progress or decline depend exclusively on the individual. On the other hand for the collectivist moral and social process or decline are global movements that drag the powerless individual. From a systemist viewpoint individualists are right in blaming or crediting individuals for whatever they are responsible for; but they are wrong in overlooking the fact that every individual is socially conditioned, at least in part, to behave rightly or wrongly. The holist is right in blaming or crediting "the system"; but he cannot possibly reform the latter unless he himself decides to better himself — e.g. to devote more of his time and resources to good social causes. Here as elsewhere the correct answer comes from systemism, which credits or blames the individual-

in-society and proposes to reform both the individual and his society through collective action, which is nothing but orchestrated individual action. (We shall deal with collective action in Ch. 10.)

1.8 *Conservatives and Reformists*

Ethical conservatives hang on to traditional values and morals, whereas ethical reformers believe that some values and norms ought to change along with society. For example, ethical conservatives defend the right to procreate at will in an overcrowded world, to own large tracts of land in a country full of landless peasants, and to settle international disputes by the force of arms. Paradoxically, both radical absolutists and radical relativists are conservatives, the former for asserting that values and norms are eternal, the latter for maintaining that every society needs and deserves the morals prevailing in it.

A clear example of an absolutist and conservative ethics is the Christian tract *The Abolition of Man* (1943) by C. S. Lewis, of *Chronicles of Narnia* fame. In defiance of anthropological and historical evidence, Lewis defended a morality, which he called *Tao*, which he regarded as "the sole source of all value judgments. If it is rejected, all value is rejected. [. . .] There never has been, and there never will be, a radically new judgment of value in the history of the world" (p. 29). Actually the *Tao* is a collection of Tory value judgments and moral rules with accent on duty and little regard for rights. It places honor before peace, and charity before mutual help; and, of course, it does not mention the right to enjoy anything or the duty to protect the environment. Notwithstanding its self-proclaimed eternity, this morality was obsolete the moment it was born, or rather rescued from oblivion.

Ethical reformists are motivated by the moral and social ills that plague their society, and by the inadequacy of the prevailing moral and social philosophies to cope with those ills. For example, at the present time they are revolted by their rulers's obsession with military expenditures at the expense of public health and education, and by the corruption that goes with the procurement of defense contracts. Furthermore they believe that something can and ought to be done to rescue humankind from the current social and moral morass.

Ethical reformists hold that morals are made for man, not the other way round, in the sense that rights have to be protected, and duties observed, only as long as they help attain worthy goals by clean means. It follows that ethical doctrines should be flexible, allowing for the

changeability of values and norms in the light of new or dwindling resources, new aspirations, and new knowledge. Hence ethical criticism and reform should go hand in hand with social criticism and reform. Whenever either is muffled the other does not take off, and social stagnation, as well as moral corruption or cynicism, prevail.

The practical problem is how to start moral reform. Whereas individualists propose to start by improving ourselves, and holists wait until society changes, systemists suggest that both have to be mobilized at the same time. They believe the historian who tells us that usually moral and social change are initiated by a handful of individuals with new ideas and a strong determination, who succeed in rallying a large enough number of supporters to have the obsolete institutions reformed. In time, the latter will educate more better and happier human beings. We shall come back to this problem in Ch. 11.

1.9 *Summary*

In this section we have examined matters of method, approach or framework, rather than content. In particular we have examined consequentialism, which is compatible with a variety of moral codes, among them all the varieties of utilitarianism. In fact what may be called the *consequentialist principle* states only that everyone should do her best to bring about the best possible outcomes of her action. This principle does not tell us *what* the best consequences or the most adequate means for producing them are. One may choose to fill the schema by specifying that the best consequence is personal happiness or the happiness of the greatest number, eternal life or the glory of God, the honor of mankind or the special interests of a nation, race, class, or party. In short, consequentialism has no special content: it is only a scaffolding for building moral codes that can be evaluated by the consequences of the actions they rule. The same holds for secularism, monism, relativism, objectivism, cognitivism, systemism, reformism, and their rivals: neither is sufficient to formulate moral norms, whether right or wrong ones.

But of course every moral code and every ethical doctrine falls into some of the above categories. Moreover the choice of the correct category should help us evaluate the various ethical *isms* — our task in the next sections. For example, the adoption of consequentialism is necessary (though not sufficient) to avoid dogmatism; of systemism, to navigate between the Scylla of egocentrism and the Charybdis of

sociocentrism; of cognitivism, to realize the importance of moral apprenticeship and reform — and so on.

Our own ethical doctrine may be placed in the intersection of the following classes:

(i) *humanism* or *secularism*, for holding that morality is a human creation;

(ii) *moderate monism* (or moderate pluralism) for subordinating all moral principles to a single supreme moral maxim: "Enjoy life and help live";

(iii) *moderate relativism*, for maintaining that whereas some values (e.g. well-being) and some norms (e.g. mutual help) are or ought to be binding and universal, others (e.g. religious faith and worship) are or ought to be optional and group-bound;

(iv) *moderate objectivism* or realism, for asserting that morals are about the real world, and in particular about right and wrong actions, while at the same time only some values, hence only certain rights and duties, are objective;

(v) *cognitivism*, for claiming that the existence of moral feelings and intuitions are not self-justifying;

(vi) *moderate consequentialism*, for holding that actions and norms are to be judged by their consequences, but also by the means;

(vii) *systemism*, for focusing on the individual-in-society rather than on either the individual or society; and

(viii) *reformism*, for holding that much of what goes on in the world is morally wrong, and that we should attempt to reform certain mores in the light of more advanced morals than those upheld by those who have led us to the present quagmire.

2. MORAL *ISMS*: EGOISTIC

2.1 *Nihilism*

Moral nihilism, or amoralism, is the view that the individual need not feel bound to any moral rules: that "everything is possible and nothing matters" (Camus 1951), that "morality is dead" (J. Gilligan 1976), and that "there is no need for morality" (Gauthier 1982). The first quote comes from an existentialist, the second from a psychoanalyst, and the third from a contractualist moral philosopher.

According to existentialism one's responsibility is to oneself: None

of us is accountable to anyone else, and none of us has the right to expect anything from others. Psychoanalysis claims to explain morality as a device for sidestepping unconscious guilt feelings stemming from the Oedipus complex. (Girls get their morals, if any, from their fathers.) And contractualism replaces morals with contracts, particularly those entered into in the free market.

Nietzsche (1886, 1888, 1892) is usually credited or blamed for having defended moral nihilism and, in particular, for holding that the search for happiness is contemptible, that the will to power is the highest virtue, and consequently heroism more admirable than goodness. (Not surprisingly Hitler was a great admirer of Nietzsche's: see e.g. Shirer 1960 p. 532.) Actually Nietzsche was preceded by Hegel, who held that might is right, and that "world history is the universal court of law" — i.e. the victorious are always right. However, an even more important source of moral nihilism is the largely unwritten code of conduct of the self-indulging rake, the tycoon, the conqueror, the despot, and the professional criminal: all these practice what the nihilist philosophers preach.

It is instructive to compare Nietzsche's amoralism with the individualistic ethical theories of the Enlightenment which he criticized. Whereas the former despised happiness and the people, the latter believed it possible for individual happiness to contribute to general welfare. Nietzsche extolled the will to power whereas the 18th century moral philosophers sought to ground morality either on the feeling of benevolence or on reason. Whereas Nietzsche's hero is the reckless adventurer or the warrior, that of the Enlightenment is the businessman or the civil servant. Finally, Nietzsche was pessimistic whereas the Enlightenment was optimistic. In short, the former was decadent whereas the latter was progressive.

It is even more instructive to compare Nietzsche's version of moral nihilism with that of Gauthier. Both reject morality for being a constraint on the pursuit of self-interest, but whereas Superman leads a dangerous life Contractman seeks shelter in contract: "The perfectly competitive market offers us a picture of harmony — between individual and society, between freedom and welfare. [. . .] let ourselves be guided by an Invisible Hand [the self-regulating market forces], with no need to submit our backsides to that Visible Foot, morality" (Gauthier 1982 p. 54). We shall analyze contractualism in Sect. 2.4. The point of mentioning it here is to note that, despite the differences between late Romantic

hero worship and contemporary market worship, both despise morality and both are fundamentally egocentric.

Moral nihilism is wrong for several reasons. Firstly, normal people have moral feelings, positive such as compassion and negative such as shame, as well as a moral conscience. It takes much mischief to blunt the former and get rid of the latter. Secondly, if we are to live in society we must observe certain norms, among them some basic moral rules, such as abstaining from harming others for fun, and entering into contracts that put life, well-being, or freedom at risk. For this reason moral nihilism, in any of its varieties, is personally and socially destructive. Whoever believes himself to be "beyond good and evil" is beyond the pale.

2.2 *Rational Egoism*

Moral nihilism is only one kind of egoism. Other kinds are individualistic (as opposed to social or universalistic) hedonism, and rational egoism. The former boils down to pleasure-seeking, and the latter to individual utility maximization. The difference between nihilism and its relatives is that, whereas the former rejects all rules, the latter stick to definite rules. And the difference between individualistic hedonism and rational egoism is that the former is purely emotional, whereas the latter purports to involve argument or even calculation.

Individualistic hedonism is nowadays popularly known as "the *Playboy* philosophy", for being promoted by the uninhibited *Playboy* magazine. The gist of this rights-only doctrine is that it identifies the good with the pleasurable. But of course we all know of counter-examples: of good things (like bitter medicines) that are unpleasant, and of bad ones (like *Schadenfreude*) that can cause pleasure. Hence it is not true that everything good is pleasurable and conversely. What is true is that *some* good things are pleasurable and *some* pleasurable things are good. Which are which cannot be told a priori but must be found out by empirical research. In any event, individualistic hedonism can hardly be regarded as a moral philosophy because it ignores duties altogether. Rather, it is straightforward immoralism.

Rational egoism is a far more sophisticated and less destructive, albeit equally wrong, doctrine. It was first explicitly stated by Hobbes (1651) and Spinoza (1670, 1677), though on quite different grounds and with rather different imports. Indeed, Hobbes affirmed, and Spinoza denied, that man is naturally evil, whence that the function of

morality as well as of government is to check our naturally base impulses. Whereas according to Hobbes *homo hominis lupus*, for Spinoza *homo hominis res sacra*. The former believed that every one of us is at war with everyone else, whereas Spinoza believed harmony to be possible on the basis of mutual respect. Accordingly, whereas Hobbes's vision of man was somber, that of Spinoza was optimistic. Yet both regarded egoism as viable provided it was combined with reason.

Rational egoism of the Hobbes kind has been vulgarized in our times by Ayn Rand (1964), a sophomoric prophet of the New Right. She held the three cardinal values to be reason, purpose, and self-esteem, and the corresponding cardinal virtues to be rationality, productiveness, and pride. At first blush there is nothing wrong with this simple schema, but trouble starts as soon as its components are analyzed. To begin with, the reason or rationality in question is not that of logic but that of mainstream economy and politology, i.e. the pursuit of self-interest. Such identification of reason with selfishness is one of the most scandalous intellectual swindles of all times. Selfishness is irrational if only because, by killing mutual help and breeding mistrust and hostility, it rips the fabric of any society.

As for purpose or determination, it is worthless except as a means for a good goal. If our goal is evil, we had better be weak in purpose. Self-esteem is destructive unless accompanied by concern for others. (Moreover, it is a psychological truism that an individual despised by everyone, e.g. for being utterly selfish, is unlikely to develop any self-esteem unless he is a psychopath.) Pride is nothing but exaggerated self-esteem, and it is diabolical unless tempered by self-criticism and altruism. Shame, rather than pride, is a powerful motivation of prosocial action, hence of social cohesiveness. (See Darwin 1871.) Finally, productiveness is admirable only if the product is valuable. Being highly productive of offensive weapons of of counter-cultural garbage is a sin not a virtue.

At best rational egoism is irrefutable for making us all selfish. (According to Hobbes even pity is a selfish feeling for being nothing but "fear felt for oneself at the sight of another's distress.") At worst rational egoism is scientifically untenable for the following reasons. Firstly, most people are naturally more cooperative than competitive: they value belonging in a group to the point of being willing to pay the price for it. Secondly, most people are actuated not only by self-interest but also by concern for others, in particular their relatives and friends,

but often also for total strangers. Thirdly, some people, particularly businessmen and political activists, take more pleasure in playing the game than in winning: this is why there are at least as many defeats as victories. In short, the thesis that man is basically selfish is not supported by the empirical evidence.

Furthermore, selfishness is impractical and immoral. It is impractical because we need help, hence we must also offer it, for most of our undertakings. And it is immoral because, by definition, there is no morality without a modicum of altruism: The whole point of morality is that it may conflict with prudence. We do not act as moral agents when all we can think of when faced with a moral problem is to ask ourselves 'What's that to me?', 'What's in it for me?', or 'What do I get in return?'.

This is not to say that moral agents must be thoroughly uncalculating. On the contrary, since our resources are limited we must combine moral principles with some calculation if we are to be efficient moral agents. Indeed, every individual has, over a given period of his life, a certain amount R of resources, such as work capacity and time. He can spend R to satisfy his own needs and wants as well as those of his dependents, or in a public-spirited way, i.e. by devoting some of his free time to voluntary work in organizations of public good, or by giving to charities. Call P the total private spending, and S the total social spending over the same period that the available resources R are estimated. Obviously, the sum of P and S equals R, i.e.

$$P + S = R, \tag{7.1}$$

where P includes the individual's savings during the same time. This equation can be represented as a $-45°$ line on the P-S plane. Figure 7.4 exhibits three such lines: for a destitute (D), an average (M), and wealthy (W) individual. (Recall that in this context wealth need not be pecuniary but may be "only" work capacity or time.)

Now, for a self-supporting individual to survive, he must spend a minimum P_0 on himself and his dependents. Hence the most he can devote to public causes is

$$S_{max} = R - P_0. \tag{7.2}$$

Those who devote such maximal resources to the public good are justly regarded as public benefactors or even saints, whereas those who devote nothing to them are regarded as either utterly selfish (if $R \gg P_0$) or as utterly destitute (if $R \leqslant P_0$). Most of us in the

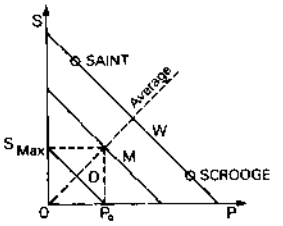


Fig. 7.4. The distribution of an individual's resources R among his personal spending P (including savings in the case of money, and leisure time in the case of time), and his volunteer contribution S to social causes.

industrialized countries fall in between these two extremes. (For more on the reconciliation of morality and prudence see Rescher 1975.)

A common excuse for failing to do one's duty by society — e.g. helping an environmentalist group, or voting — is "It makes no difference whether I do it or not". And a common excuse for taking part in wrong actions, such as breaking the picket line, or joining in the chorus of praise of the despot in charge, is "If I don't do it, someone else will". There are several arguments against using such excuses. Firstly, in many cases we do not know for certain whether or not our act or omission will make a difference. Secondly, personal example is always influential; most people respect those who play fairly without expecting to win. Thirdly, if everyone were to excuse himself from doing his duty by society, there would no society left worth living in. Fourthly, once a person has used an excuse of either type he is likely to continue doing so until he becomes morally degraded. Fifthly, if it takes N persons to prevent an event from causing an amount H of harm, my defection may cause a harm amounting at least to H/N — often more, because my attitude is likely to drag other people as well. (See Glover 1986 for a careful analysis.)

In short, egoism is unrealistic, for most people are not fully egoistic; it is impractical, for the egoist cannot expect help from others; and it is immoral, for without some altruism there is (short-sighted) prudence but no morality proper. (For more see Rescher 1975, Sen 1977.)

2.3 *Libertarianism*

Libertarianism is the view that individual liberty is the *summum*

bonum. However, the traditional libertarians, such as Mill (1859), were quite different from the contemporary ones, such as Nozick (1974) and Hayek (1976). The former were interested in all the dimensions of liberty: biological, economic, political, and cultural. They were genuine liberals and progressive social reformers in the tradition of the 18th century *philosophes* and the early utilitarians. They favored the equality of races and sexes, economic free enterprise, civil liberties, and cultural freedom. They fought the conservatives of their day. For example, Mill (1873) described himself as a "thorough radical and democrat".

On the other hand most contemporary libertarians only worry about the constraints imposed by the liberal or relief state on property rights. Their chief enemies are the tax collector and the social worker, the planner and the politician. They favor the destruction of the relief state not because it is a mere palliative incapable of effecting social justice, but because it is a burden on the rich. Incidentally, Rawls (1971) is the outstanding exception. Although he too posits liberty as the highest value, he favors the role of the state as a redistributor of wealth. Actually, though variously described as a libertarian, a contractualist, a Kantian, and even a utilitarian, Rawls is neither. Anyway his central interest is not ethics but political and legal philosophy: See Rawls (1985).

We shall center our attention on contemporary libertarianism. Unlike sheer egoism, libertarianism is not a rights-only philosophy. It holds that every right is a constraint that others must obey: it protects the individual from other people's interferences and allows him to do certain things (Nozick 1974). This is correct. The trouble is that, according to the libertarians, the duty to respect other people's rights is our *only* duty. Moreover it would be our duty not to assume any general positive duties, such as helping others, for in observing them we would be bound to violate other people's rights, as is the case with the use of tax revenues to redistribute wealth.

The modern state, be it liberal, socialist, or fascist, presupposes that everyone has certain general positive duties, such as cooperating towards the welfare of others, if not directly at least through paying taxes. (See Garzón Valdés 1986b.) The libertarians reject vehemently the suggestion that we have any positive duties, for any such duty violates some right. (In particular, the duty to pay taxes violates one's right to dispose freely of one's property.) They propose instead the dismantling of the modern Leviathan and its replacement with a

"minimal state" composed essentially of law and order forces. In this regard they merely echo what Spencer proposed more than one century ago: they are hardly innovators. In any event they do not propose any *ethical* doctrine, for ethics is concerned with *moral* not just economic or political rights and duties.

However, the worst foe of modern day libertarians is not the hypertrophic relief state, which will be criticized in Ch. 11, Sect. 4, but equality. They hold that equality is incompatible with freedom and, since they put the latter on top, they are inegalitarians. Consequently they are closet authoritarians, for there can be no democracy of unequals anymore than there can be a democratic association of wolves and lambs. When libertarians hold that equality is incompatible with liberty, what they really seem to mean is that *democracy* is incompatible with unrestricted property rights. (See e.g. Dahl 1985.)

Nevertheless there is some truth in the claim that there is some tension between liberty and equality. Firstly, full economic liberty, or rather unbridled free enterprise and free trade, entail the liberty to exploit individuals and entire nations, whose exploitation intensifies individual and national inequalities and restricts individual and national freedom. If the exploited resist, e.g. by joining labor unions or oil cartels, then they curtail the liberty of the exploiters. Secondly, regrettably many egalitarians have been and are politically authoritarian — but so are the libertarians who, in the name of economic liberty, support Third World dictatorships.

The fact of the matter is that (rough) equality is not only compatible with (restricted) liberty but is a necessary condition for the latter: Recall Ch. 6, Sect. 2. If everyone is to have access to the economic and cultural resources of her society, then such resources must not be monopolized by an elite. Put negatively: If economic and cultural liberty are the privilege of a minority, then the greatest number must be deprived of such liberty. Hence genuine liberalism is egalitarian. (See e.g. Ackerman 1980.) Similarly egalitarianism, to be genuine, must not be limited to economic equality, for the moment an egalitarian government monopolizes the economy or the culture it limits equality. In short, we are not faced with a *choice* between liberty and equality, but with the challenge of *joining* them into integral democracy: Recall Ch. 6, Sect. 2.5, and see Ch. 11.

Moreover libertarians have failed to tell us what to do in case of conflict between freedoms, for they extoll liberty in general. What must

we do when free enterprise collides with the freedom of access to health care facilities? What when a speaker advocates the derogation of civil liberties? What when the majority rules against minority rights? (See Borovoy 1988.) Such problems cannot be solved if all freedoms are placed on the same level: they call for a ranking based on a definite value system and a definite morality, neither of which has been delivered by libertarianism.

But where libertarians fail most dismally is in addressing the global issues confronted by humankind: nuclear armament, environmental degradation, overpopulation, and poverty. In particular, the rapid deterioration of the environment has left libertarians indifferent (Hospers 1988). And the fact that most people in the world, and one-fifth of the North American population, live below the poverty line, does not bother them either.

In conclusion, libertarianism falls short of a moral philosophy because it does not admit any general positive duties — in particular that of reciprocity — and it ignores all moral feelings — in particular benevolence and compassion. It is only a social philosophy and a very deficient one to boot for being individualistic and for overlooking solidarity, mutual help, and participation, without which no social group is viable. Contemporary libertarians have failed because they have confused freedom with greedom.

2.4 *Contractualism*

Contractualism, or contractarianism, is a distinctive variety of rational egoism. As originally stated by Hobbes (1651) it boiled down to the tenets that (*a*) all humans are basically selfish, hence competitive and even aggressive; (*b*) in the "state of nature" or "original position" human beings were mutually independent and at war with one another, and (*c*) society is a product of a deliberate agreement or contract that reconciles the mutually opposed interests of individuals. Contemporary contractualists, such as Buchanan (1975) and Gauthier (1986), add the following theses: (*d*) an action is right if and only if it conforms to a generally agreed on deal, and (*e*) morals are a byproduct of contracts — i.e. if you keep your contracts, morals will take care of themselves.

The differences between Hobbes and his contemporary heirs are no less interesting that their similarities. Hobbes, and after him Rousseau (1755), held that all men are born equal; on the other hand most present day contractualists are inegalitarian. Whereas Hobbes's chief

concern was to protect the individual from himself and attain social and international peace, that of his contemporary followers is to protect the property rights against the liberals and socialists who seek a more uniform or just distribution of wealth. Finally both Hobbes and Rousseau superimposed morals upon the social contract instead of claiming that morality is superfluous. Moreover, Hobbes's ten "Laws of Nature" were at variance with his own view of man as a rugged individualist. Indeed, one of those "laws" (precepts) was "Treat all others as your equals", another "Enjoy in common the things that cannot be divided, and distribute equally the others" (Hobbes 1651 Ch. 15). None of these egalitarian maxims would be acceptable to any contemporary contractualist. (Again, Rawls is the exception, but then he is not a genuine contractualist.)

Contractualism has a grain of truth. It is true that people are *often* actuated by self-interest — though not always; that *sometimes* people engage in rational behavior — but not always; that *some* kinds of social behavior are subject to contract — though by no means all of them; that every contract involves *some* trade-off between rights and duties — though not always an exact balance between them; and that in every society there are *some* principles acceptable to all — though not always sincerely. Contractualism errs in mistaking *some* for *all*.

The psychological, anthropological, sociological and historical theses of contractualism are hopelessly obsolete: Recall Ch. 4, Sect. 3. In particular, Hobbes's and Rousseau's "state of nature" is mythical. So is their hypothesis that the origin of society is a contract. (Forman (1989), a moderate contractualist, concedes both points.) As a matter of fact sociality is an essential property of all humans, and every one of us is born into some society or other. Furthermore primitive man did not contract for social peace: primitive society is typically stable and stateless. The only agreements or contracts that primitive men may have entered into are most likely to have been tacit, and to have involved domestic obligations, division of labor, and trade.

Contractualism does not fit modern societies any more than it does traditional societies. Firstly, the most important human bonds, such as those of friendship, conjugal and parental love, care, solidarity, and social responsibility, are not subject to contract but to feelings and to moral norms. Secondly, both morality and the law make room for a number of categories of sentient being incapable of making any deals, such as minors and the unborn, prison inmates and the very sick, and

even domestic animals. Thirdly, neither morals nor the law result from contracts; rather on the contrary, the former are the frameworks without which contracts would be invalid. Fourthly, it is not true that morally right and wrong actions are defined by contract, for many a contract is unfair and therefore can be denounced on moral grounds. Even legal rights are sometimes morally wrong. (Remember that serfdom and slavery, as well as torture and the death penalty, have been fought against on moral grounds.) Fifthly, contracts do not guarantee freedom except in a society of equals. In a stratified society there are power asymmetries that make it possible for people to enter into unfair contracts. (For example, since there is no symmetry between landowner and tenant, or money lender and borrower, the weaker party may have no choice but to accept an unfair deal: he has no bargaining power, hence if he exercises his freedom to decline the deal he and his dependents may starve.) What holds for individuals holds also, *mutatis mutandis*, for nations: The underdeveloped nations are largely at the mercy of the industrialized ones and of the International Monetary Fund, which can stipulate raw materials prices, the kinds of plants to be cultivated, and even political régimes. Genuine and mutually profitable deals can only be struck among equals. Power disparity is the small, usually tacit, print of many a contract. As a wit once said, "The large print giveth, the small print taketh away".

However, from an ethical viewpoint the main objection to contemporary contractualism is that it misses the whole point of morality. Morality is not about "general agreement" (Scanlon 1982) but about fairness in the allotment of rights and duties. Nor is morality a by-product of agreement, as Gauthier (1986) claims; on the contrary, contracts ought to conform to moral norms. We do not trust our partners for having signed an agreement with us but, on the contrary, we expect them to observe the terms of the contract because we trust their integrity (and their prudence). Only fools sign contracts with crooks. Morality is thus a necessary condition for contracts rather than the other way round. Contractualist ethics stands on its head.

Contracts and legal codes provide neither the fuel nor the moral justification for social behavior. At most they are the rails on which the social machinery is constrained to roll in normal times. (In times of crisis the machine derails or one gets off it before it does.) Moreover, contrary to the individualist ontology underlying contractualism, in civilized society contracts are never person-to-person affairs, for the

state is a silent party in any agreement that can be held up in a court of law. For example, no court of law would recognize a contract whereby an employee obliges himself to commit suicide on turning 60, in exchange for a pay rise or for an extra pension for his family. Common decency requires that morals take precedence over contracts rather than the other way round.

Following Hobbes (1651), Gauthier (1986) identifies justice with adherence to the rules of the competitive game, which rules are alleged to prevent mutual destruction. But as matter of fact one of these rules is that, unless protected, the weaker contender loses, perhaps to the point of being left out of the game. In any case, if justice were the same as "the rational disposition to co-operative behavior" in such non-cooperative "games" (Gauthier 1986 p. 115), the very young and the very old, as well as the bed-ridden and the handicapped, would remain outside the realm of justice: being unable to compete or cooperate in a significant manner, they would not be entitled to just treatment. Such behavior would be regarded as grossly immoral even by the primitive.

Real life overflows contracts. By virtue of what agreement does one offer help to someone in distress, or abstain from harming an innocent? What is the contract behind a person's opposition to corporal punishment in schools and prisons? Where is the Invisible Hand that regulates a person's voluntary work in a public good organization? None of such attitudes or actions results *from* agreements, but some of them may result *in* agreements. In fact, moral pressure can change custom or law.

In short, contractualism, particularly in its contemporary version, is scientifically untenable, practically unrealistic, and morally hollow. It has a single virtue, namely that, unlike straightforward egoism, it admits duties. Still, these do not include the moral duties, particularly the supreme duty: Helping to live. If only for this reason contractualism, like libertarianism, does not embrace an ethics.

2.5 *Negative Utilitarianism*

Negative moralities, whether naturalistic like Epicurus's or supernaturalistic like that of the Ten Commandments, tell us what is wrong to do, but not what is right to do. Therefore they are guides to inaction not to action.

The simplest negative morality is negative utilitarianism, which enjoins us to minimize suffering -- instead of, say, maximizing happiness. Thinkers as different as Hippocrates and Epicurus, Pareto and

Popper, have espoused the principle *Do no harm*. Hippocrates wished to spare the sick the added misery of painful and ineffective treatments, at a time when hardly any effective ones were know. Epicurus held the principle to prevent the search for one's own happiness from hindering that of others. Pareto wanted to optimize gains in such a way that no party in a business transaction would be made worse off. And Popper's rationale was to prevent the atrocities perpetrated in the name of a future happy world.

Negative utilitarianism restrains egoism but does not encourage altruism. Therefore it is effective when we are in a position to do harm, but not when we are in a position to do good. Furthermore it is open to the following objections. Firstly, it ignores such positive moral feelings as sympathy, empathy, benevolence, and solidarity, any of which may drive us to beneficial action. Secondly, by recommending passivity it condones evil. The spectator who watches impassively a hooligan attacking an old woman, and the citizen who does not bother to vote, comply with negative utilitarianism and thereby tolerate evil. Thirdly, the doctrine discourages people from becoming involved in public affairs. Fourthly, the most expeditious way of implementing the doctrine would be to exterminate humankind, for then human suffering would cease altogether (R. N. Smart 1958).

Negative moralities, utilitarian or not, leave us in the lurch when confronting real life moral problems, for they do not presuppose any value ordering and they fail to suggest what to do. For example, we are told neither to kill nor to lie, which is right in most situations. But what if aborting an embryo will prevent ruining the life of a useful member of society? What if telling a lie will save an innocent life? Negative moralities may tell us that the right path is narrow but they do not indicate where it leads nor what to do in the presence of evil. Hence they are not suitable guides to life. (See more on this in Frondizi 1977.)

In conclusion, negative utilitarianism is a form of egoism. Moreover it is akin to libertarianism, in that both deny that we have general positive duties, hence both condemn any commitment to altruistic causes — which they often ridicule as "bleeding heart do-goodism". Hence they have no claim to moral content.

2.6 *Summary*

We have examined five different versions of egoism: moral nihilism, rational egoism, libertarianism, contractualism, and negative utilitar-

ianism. All five are philosophically unsound for being ontologically individualistic, i.e. for regarding social groups as aggregates of individuals. Consequently they can afford to overlook such systemic or emergent properties as social justice and democracy. And all five enthrone selfishness, though the last three do set some limits on it in order to restrict the damages caused by utterly egoistic, hence antisocial, behavior.

However, limiting egoism is insufficient to get a viable society. Indeed no social group can last long unless prosocial behavior overrides antisocial tendencies. The reason is that nobody is fully self-reliant: Every one of us depends on others, and in a modern society most of these are unknown to us. This mutual dependence calls for mutual help, and mutual help involves caring, sharing, and getting involved in other people's business and, at least occasionally, in public life as well.

Contrary to what Hobbes, Rousseau and his followers think, morality is not just a social control device. It also has a constructive function, that of helping others — some of whom may help us in turn. And moral behavior is partly driven by moral feelings, which are often stronger than self-interest. For these reasons a doctrine that shuns altruism cannot pass for a moral philosophy: the expression 'egoistic ethics' designates a contradiction in terms.

This concludes our examination of the main egoistic doctrines. We now turn to a few genuine ethical doctrines.

3. MORAL *ISMS*: ALTRUISTIC

3.1 *Natural Law*

The natural law schools of moral and legal philosophy hold that all humans are born with certain indisputable rights and duties which would be prior to any convention or legislation. This idea was first explored systematically by the Alexandrian and Roman Stoics. Thomas Aquinas gave it a theological twist by asserting that, though natural, the basic laws are not man-made but a divine gift. The moderns, in particular Grotius, Hobbes, Spinoza, Hume, Montesquieu, Diderot, Rousseau, and Kant, adopted the idea in its secular form.

The most interesting, influential and lasting school of natural law is the original Stoic one. It is naturalistic ("Live according to nature") as

well as rationalistic ("Virtue requires knowledge and intelligence"); it combines self-interest ("The ultimate goal is well-being and peace of mind") with public spiritedness ("It is the citizen's duty to participate in politics to promote justice"); it is cosmopolitan (a single world-wide nation) and, in some versions, egalitarian as well. But it is, above all, an upright, nonconsequentialist and austere morality demanding that we live a simple and clean life, that we check our passions, and do our duty. It is a good morality to face scarcity and bear the burdens of life. Since suffering is unavoidable, any reasonable moral code will contain a pinch of Stoicism.

The political fortunes of the natural law idea have been rather strange. Grotius, Hobbes and Kant used it to preach submission to the state. So do some contemporary conservatives, particularly conservative Catholics. But the very same idea of natural rights was used by Montesquieu (1748) and Diderot (1750) to discredit the *ancien régime*, and by the authors of the American Declaration of Independence (1776) and the *Déclaration des droits de l'homme et du citoyen* (1789) to sketch a new society. Thomas Aquinas himself had used it six centuries earlier to argue for some limitations of property rights and to hold that "whatever a man has in superabundance is owed, of natural right, to the poor for their sustenance" (*Summa Theol.* II—II, Question 66, Art. 7).

The German romantics, in particular Hegel and Herder, and later on the socialists Marx and Engels, as well as the historico-cultural (or historicist) school, and much later the legal positivists, took the natural law doctrine to pieces. They pointed out that the concepts of right and duty are not biological but cultural. If a child is born with certain rights it is only by virtue of being born into a society that happens to bestow such rights on him: a different society may not recognize any rights, not even the right to life. This is true: As a matter of historical record, rights are conquered or bestowed, not determined biologically. This holds in particular for property and civil rights, and even more so for animal rights.

Whether moral or legal, norms are artifacts, and as such they can be designed, altered, or discarded to suit the interests of individuals or groups. Hence there is nothing eternal or sacrosanct about them. However, some rights and duties are *basic*, in the sense that without them no individual or social life is possible. (Recall Ch. 4, Sect. 1.) Obvious examples are the right to seek a means of livelihood and the

duty to support one's children. These are "natural" only in that they render life possible; yet they have been violated time and again in the course of history. In defending such rights the natural law theorists are right though for the wrong reason.

In short, the natural law school is scientifically indefensible, for the notions of right and duty are moral, sociological and legal, and as such changeable. Still, the universalism and basic egalitarianism inherent in it are valuable and have oftentimes been used to fight economic or political oppression.

3.2 *Kant*

Kant's ethics is an offshoot of the natural law school, hence a mixture of good and bad points. In particular, it is secular and universalistic and, on this count, belongs in the Enlightenment; but at the same time, for placing duty before right, and for defining the good as the observance of duty, it is traditionalist. This ambivalence had a political correlate: Kant was torn between his admiration for the American and French revolutions, and his obligations as a public servant of the despotic Prussian state (Stern 1967 p. 186). Kant inherited this ambiguity from the natural law school, which had been used to defend the *status quo* as well as to criticize it. This and other ambiguities in Kant's work have given rise to a huge Kant scholarship. We do not presume to contribute to it, but shall restrict ourselves to three points of lasting theoretical interest: the right "use" of fellow humans, the alleged primacy of duty, and the requirement of universality.

A basic principle of Kant's is "Treat fellow human beings as ends, not means". This is an admirable norm, particularly in contrast to egoism. However, it needs some amendment for being psychologically and sociologically somewhat unrealistic. In fact, in every social group every human being is at the same time a means as well as an end. Someone who is not a means to anything is totally useless, and no sound person wishes to be useless. In every social group there is a leadership dedicated to attain certain ends with the help of other group members. The point is not to do without leadership but to prevent the selfish or ruthless manipulation of people. In short, the maxim should be "Treat fellow human beings not only as means for the common good but also as ends in themselves, i.e. help them achieve, retain or improve their well-being".

According to Kant duty is absolute and precedes the right, which in

turn defines the good. (Consequently ethics precedes axiology.) The practical upshot of this view is the rule "Do your duty regardless of consequences and be saved — or damned". This thesis is open to the following objections. Firstly, it does not match experience, for ordinarily we judge intentions and actions according to their possible consequences; likewise we weigh duties according as they drive to right or wrong actions. For example, a rational person thinks twice before performing a charitable act, knowing that an individual or a community will be better off if helped to learn how to earn a livelihood than if given a hand-out. Kant's demand, of acting out of moral righteousness regardless of motivation or consequence, is unrealistic and it is bound to lead to inefficiency or even to cruelty.

Secondly, Kant's grim conception of morality as a system of inflexible duties to be performed regardless of circumstances and consequences is like the stick without the carrot: it does not make for the happiness of the donkey and it is therefore bound to be inefficient, even for managing a Prussian garrison. An efficient moral code, one embraced willingly, not only constrains but also motivates: it includes not only duties but also rights and ideals, so that it inspires some actions that go beyond the call of duty.

Thirdly, the absence of an axiological foundation makes no room for moral value judgments that are not in the nature of obligations. For example, Kant himself believed that peace is preferable to war, but he had to refrain from stating that it is everyone's duty (including his King's) to favor peace.

Fourthly, Kant's inversion of consequentialism, to read "Good $\Rightarrow$ Right", condones moral dogmatism and political conformism. Indeed, a Kantian has no way of evaluating an alleged duty other than checking whether it occurs in the socially accepted code. Thus he may approve of the executioner because the latter does his duty. Dogmatism and conformism are morally wrong for being morally insensitive: for not subjecting custom and law to a moral examination, as they must be if we seek to improve ourselves.

All deontological or nonconsequentialist doctrines are inevitably dogmatic, for they require that all moral principles take the form of absolute commandments, of the forms "Do A" or "Don't do A", without qualification or underlying reason. In a consequentialist ethical doctrine moral rules may take the form of hypothetical imperatives of the form "If a is good for b, and you wish b well, and c is likely to

bring about *a*, and it is in your power to do *c*, then do *c*". A clear advantage of this approach is that empirical evidence for or against the rule in question can be adduced, and that rational argument about it becomes possible (Harsanyi 1958, Bunge 1960). The possibility of arguing rationally about norms is particularly important in cases of norms conflict. Such conflicts can only be resolved by resorting to the underlying value order (Ch. 4, Sect. 2.2). For example, if the only way to save a life is by lying or stealing, the consequentialist may let the right to life prevail, whereas the Kantian won't: he will stick to the inhumane *Fiat justitia, pereat mundus.*

Having indulged in some Kant-bashing let us close with a note in praise of the famous Categorical Imperative, i.e. the meta-rule that enjoins us to act only according to rules that are universal or universalizable, i.e. valid for all humans. (For recent discussions of this matter see Potter & Timmons Eds. 1985.) This norm presupposes the principle of the equivalence of all human beings, common to the Stoics and the early Christians, the utilitarians and the socialists. It is still a task before us to elaborate a minimal moral code that may be embraced by everyone. (We shall return to this in Ch. 12, Sect. 3.) Incidentally, note that the Categorical Imperative is not a norm, because it does not concern behavior in a direct manner: it is a metanorm, or ethical postulate, for referring to rules. See Figure 7.5.

In short, Kant's ethics contains some admirable principles, but it is flawed on three counts: it is short on rights and long on duties; it places rules above people and their circumstances; and it contains too few substantive principles. Yet because of its worldliness, altruism, universalism, and egalitarianism, it continues to be a source of ethical inspiration in addition to being an academic industry.

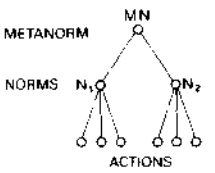


Fig. 7.5. Norms N_1 and N_2, each of them referring to a set of actions, are in turn ruled by metanorm *MN*.

3.3 *Utilitarianism*

Utilitarianism is the collection of ethical doctrines that measure the worth of an action by the utility it procures, i.e. by the value of its outcome. Utilitarianism, a typically consequentialist and monistic doctrine, goes back to Hume (1751).

From a substantive viewpoint we may distinguish two kinds of utilitarians: the individualistic or egoistic utilitarians and the universalistic or altruistic ones (Sidgwick 1907). The former are followers of rational egoism (Sect. 2.2). Egoistic utilitarianism is the calculating selfishness inherent in mainstream economics and politology. Its slogan is "Maximize your expected utility". It consecrates greed, under the name of enlightened self-interest, as the greatest virtue.

Classical utilitarianism is of the universalistic or altruistic kind. It holds, following the materialist philosophers Helvétius (1758) and Priestley (1768), that one should always pursue "the greatest happiness of the greatest number". This deceivingly simple and attractive formula was adopted by Bentham (1789). So as not to leave any doubts concerning the social character of his doctrine, he conjoined it with the egalitarian principle "Each is to count for one and no one for more than one". In short, classical utilitarianism, from Bentham and Mill to Harsanyi (1985) and Smart (1973), proposes that we maximize the aggregate or social utility or welfare — whatever this may be — rather than the individual one.

However, the classical utilitarians took it for granted that every benevolent and reasonably smart individual would automatically maximize social benefits by pursuing his own personal interests. Mill (1863) went so far as to attempt to formally deduce universalistic from hedonistic morality. He did not realize that this could only be done by explicitly adding some such principle as Bentham's egalitarian maxim, or Kropotkin's mutual help precept. For, if every individual is allowed maximum liberty, then destructive competition, exploitation and even oppression are likely to ensue. (Recall Sect. 2.3.)

The combination of the utility principle with egalitarianism solves moral problems of the kind formulated by Harris (1975). Two patients are bound to die unless one of them gets a new heart and the other a new lung. There are no such organs in stock. The patients propose that a healthy man be killed, so that the two organs will become available. The egoistic utilitarian would agree to such a crime because it would

double the total amount of happiness. On the other hand the altruistic utilitarian will count no man as more than one, hence he will prevent the crime. But, being an activist rather than a quietist, he will publicize the need for the organs in question, and may thus save the two patients.

Bentham and Mill were social reformers. On the other hand Sidgwick (1907), though a utilitarian, criticized the attempt to break the moral code accepted by his society: he was a conservative. (This suggests, incidentally, that utilitarianism has no moral code of its own.) Others have been revolutionaries. Lenin (1920 p. 669) is a case in point, for he held that "morality is what serves to destroy the old exploiting society and to unite all the toilers around the proletariat, which is creating a new, Communist society". This statement is utilitarian because (*a*) it presupposes Marx's thesis that the transition from capitalism to communism would benefit everyone, and (*b*) it draws no difference between morally right and wrong means, but adopts Machiavelli's maxim "The end justifies the means". (For more on Marxist ethics see Kautsky 1906 and Hörz and Wilke Eds. 1986. Incidentally, Marx had criticized capitalism chiefly on moral grounds: for being exploitative and for putting a price on everything, hence for being morally corrupting. And, while Lenin criticized "bourgeois morality", he was quite puritanical; in particular, he campaigned against free love.) In short, utilitarianism is morally and politically uncommitted.

So much for substantive issues. Let us now deal with a methodological problem. Brandt (1959) distinguishes two main varieties of utilitarianism: *act utilitarianism* and *rule utilitarianism*. According to the former an act is morally right only if it has maximally beneficial consequences: it is an opportunistic doctrine rather than a principled one. On the other hand, according to rule utilitarianism (*a*) an act is morally right only if it abides by some moral rule, and in turn (*b*) a rule is morally right only if the acts it covers are maximally beneficial. The jurist J. Austin (1832) put it in a nutshell: "Our rules would be fashioned on utility; our conduct, on our rules". Harsanyi (1985 p. 44) puts it more explicitly: "the very purpose of rule utilitarianism is to identify the moral code that would maximize expected social utility if it became the accepted moral code of society".

In principle, rule utilitarianism is the more inclusive of the two varieties of utilitarianism, for it takes the utilitarian maxim and builds upon it. Whereas act utilitarianism is only a criterion for decision

making, rule utilitarianism is both a criterion and a code (Ratner 1984 p. 755). Hence *prima facie* rule utilitarianism is vastly superior to act utilitarianism. But the difference is illusory because rule utilitarians have not proposed any rules of their own: Like so many other contemporary moral philosophers, they have been so busy doing metaethics that they have had little time to spare on morality. The upshot is that rule utilitarianism can only be put to work if conjoined with a moral code external to utilitarianism. Usually this code is the received one.

Harsanyi (1985) has unwittingly supplied a clear example exhibiting the moral emptiness of rule utilitarianism. Marital unfaithfulness, if kept secret, maximizes the aggregate utility of all three (or more) people involved. But if discovered it would not only cause misery to all the individuals concerned, but would also weaken trust in matrimony and, in general, in the prevailing moral code. To avoid the devastating consequences of act utilitarianism the rule utilitarian invokes the standard morality, which happens not to be utilitarian. In short, rule utilitarianism has so far only made a methodological contribution by showing the weakness of act utilitarianism. (For another telling example showing the need for extra precepts see Gibbard 1984 p. 280.)

Smart (1973), an act utilitarian, claims that rule utilitarianism encourages a rigid and superstitious attitude towards moral rules — what he calls 'rule worship'. But the total absence of rules is confusing and paralyzing. We should object to bad rules not to rules in themselves. True, abiding dogmatically by a rule can have damaging consequences; but this holds in every field, not only in ethics. The only effective way of fighting dogmatism, whether in ethics or elsewhere, is by reviewing the principles once in a while: by examining them conceptually and in the light of experience, i.e. by their practical fruits. But we must have rules before we test them, and so far rule utilitarianism is only the name of a project.

Let us now evaluate utilitarianism of the universalistic or altruistic kind. First the credit side. It has, from our viewpoint, a number of virtues: (*a*) it is secular rather than theological, hence it harmonizes with modern culture better than traditional deontologism; (*b*) it is consequentialist, hence less dogmatic than deontologism; (*c*) it is activist rather than contemplative; (*d*) it involves a shift from medieval values, such as piety, self-denial, entitlement, position, honor, and dignity, to down-to-earth usefulness, and (*e*) it is socially oriented — whence it is unfair to blame it for the wars, massacres and persecutions of our time, as Hampshire (1983 pp. 84—85) has done.

Now for the debit side. An obvious flaw of utilitarianism is that it is not psychologically true: We act mostly on impulse, from empathy or from habit, rather than on calculation. For this reason Darwin (1871 p. 162) stated that the utilitarian maxim is to be regarded as the *standard* but not as the *motive* of conduct. (For more on the neglect of moral sentiments on the part of most utilitarians, see Rescher 1975.) But even if utilitarianism is regarded as a normative not a descriptive view, it is open to the following objections.

Firstly, utilitarianism has no underlying value system aside from the crude dichotomy of all objects into useful and harmful. It tells us neither *what* is good, hence desirable, nor *what* is morally right, hence doable. It does not even distinguish needs from wants. Hence it does not help us evaluate plans of action. Not surprisingly, we find self-styled utilitarians on both sides of nearly every issue, e.g. among the advocates and the critics of nuclear deterrence and first strike. (See e.g. Hardin *et al.* Eds 1984.)

Secondly, utilitarianism, though centered on the utility concept, lacks a correct and applicable utility theory. In fact, the existing utility theories and their applications, particularly game theory, involve utilities (subjective values) that are neither interpersonally comparable nor subject to general laws nor — and this is fatal to any talk of aggregate utility — additive. (Recall Ch. 2, Sect. 1.1 and Ch. 3, Sect. 3.3.) For this reason some utilitarians resort to preferences — which, being often irrational, do not constitute a safe basis for either efficiency or justice. Others resort to phony numerical assignments, particularly when using game theory. For example, in defending cooperative utilitarianism, Regan (1980 p. 124) sets up a social payoff matrix the entries of which, pulled out of a hat, presuppose what is to be proved, namely that cooperation pays more than defection.

Thirdly, utilitarianism, particularly of the act type, focuses on goals and overlooks the problem of means. Consequently (*a*) it may condone the maxim that the end justifies the means, and (*b*) it does not help us to choose the (prudentially or morally) right means. However, utilitarianism may occasionally help us *reject* certain means. For example, a utilitarian criminologist will oppose torture and the death penalty by arguing that (*a*) they are inefficient as crime deterrents and (*b*) they hurt not only their targets but also their executors for troubling their moral conscience or blunting their moral sensibilities.

Fourthly, for insisting on the maximization of aggregate or total utility, utilitarianism skirts the problem of distributive justice (Rescher

1968, Sen 1970, Rawls 1971). An example taken from Sen (1970 p. 143) will clarify this point. Consider a society composed of two units (individuals or social groups) A and B, and two possible social states, S and T. In state S, the welfare of A is 1 and that of B is 0; in state T, the welfare of A and B are the same, namely 1/2. Thus the expected (average) utilities of the two social states are the same, i.e. 1/2; but whereas state S is grossly unfair to B, state T is fair to both parties. Still, this defect can easily be repaired by resorting to Bentham's egalitarian principle, "Each is to count for one and no one for more than one". The resulting distributive principle would be: "Of two social states, prefer that which both maximizes total welfare and distributes the latter in the fairest fashion". Regrettably this principle is vague because of the inexactness of the expression 'total welfare'.

Fifthly, utilitarians ignore the complex process of competition and cooperation among individual or collective agents and, in particular, the bargaining processes and the resulting contracts (Gauthier 1986 p. 127).

Sixthly, the maximization requirement faces the following difficulties. To begin with, it can rarely be put into practice because it is exceptional that two mutually independent functions may attain their maxima at the same time (Mosteller 1981). Further, maxima are not necessarily optima. We wish to maximize our chances of *attaining* our goals, but the goals themselves need not be maxima. Think of the harvesting of a natural resource: A rational manager will exploit it at such a rate that it will be profitable without destroying the resource, whereas the maximizer is bound to kill the goose that laid the golden egg — as is currently the case with fishing, logging, and even cultivation.

In addition to these genuine difficulties a number of philosophers have found imaginary flaws in utilitarianism. For example, it has been said that it constrains the realization of an individual's personal (or life) project. This is true, but it applies to every ethical doctrine except straight egoism, which is immoral: no personal project should involve jeopardizing other people's well-being. It has also been claimed that the classical utilitarian principle allows conflicts between the greater good and the greater number: that whereas some might wish to maximize the total amount of goods, others prefer an equal distribution of a lesser bounty. But this is an imaginary conflict, for it is technically possible to increase production and enhance fairness at the same time. What is true is that certain extremist ideologists would have us believe that we must

opt for either goal. However, none of them is a utilitarian in the tradition of Bentham and Mill.

In short, utilitarianism is deficient rather than basically wrong. It lacks an underlying value system, it is not supported by a true value theory, and it has no clear notion of aggregate or social utility. Worse, utilitarianism draws no distinction between the moral and the prudential. This is why it contains no moral code, in particular no norms concerning the rights and duties that arise from basic needs or legitimate aspirations. Like Kantianism and contractualism, it is morally empty. Regrettably utilitarianism is often rejected for the wrong reasons, mainly for being consequentialist or for being concerned with social welfare.

3.4 *Agathonism*

Our own ethical theory, formulated in Chapters 4 to 6 on the basis of the value theory defended in Chapter 1 to 3, may be called *agathonism* (from $\acute{\alpha}\gamma\alpha\theta\acute{o}\nu$ = good), for favoring the pursuit of the good in both the personal and the social spheres. There is no point in summarizing it here, but in may be worthwhile to note some of its similarities and differences with alternative doctrines.

Agathonism shares several important features with rival ethical theories. In particular it is altruistic, basically egalitarian, universalistic, and consequentialist. Furthermore it agrees with the natural law school in that some rights and duties are natural because they derive from biological needs. It shares with deontologism a concern for duties and therefore the rejection of rights-only doctrines. And it agrees with utilitarianism in assigning no value, moral or otherwise, to any actions unlikely to enhance personal well-being or social welfare.

On the other hand agathonism differs from most of its rivals in that it rests on a definite value system and a definite value theory. Moreover, far from being vague platonic ideas, its values are primarily rooted to basic biological, psychological or social needs, and secondarily rooted to legitimate aspirations. The top value is the survival of humankind, which cannot be secured except in peace and in a favorable environment: See Figure 12.1. (These two conditions are jointly necessary but mutually independent.) The moral correlate of the value judgment *Primum vivere* is the precept *Enjoy life and help live*, which combines self-interest with social responsibility. Every legitimate human right and every genuine human duty is subsidiary to the maximal norm.

Agathonism has the philosophical advantages noted in Sect. 1.9. It has an additional advantage that will become apparent in Part IV of this book, namely that it underlies a realist theory of action and a theory of integral democracy and integral national and international development. Moreover we submit that agathonism satisfies all of the desiderata listed in Sect. 3 of the Introduction. The reader will judge whether this claim is justified.

3.5 *Summary*

We have reviewed four altruistic ethical theories: natural law, Kantianism — a variant of the former —, utilitarianism, and agathonism. We have found merits in the first three, mainly their being altruistic, universalistic, and basically egalitarian. But we have also found them wanting on several counts.

For one thing, none of the first three theories is realistic enough: hardly any of them can be practised consistently by real people. For example, it is simply not true that all rights and duties are thoroughly natural and permanent: most are society-bound and therefore historically changeable. Kant's ethics lacks an underlying value theory, it inverts the relation between the good and the right, and it dwarfs rights by comparison with duties. Utilitarianism too is unrealistic for overlooking moral sentiments and overrating the extent to which we calculate expected utilities. As well, it lacks an adequate value theory and, what it worse, it does not contain a moral code, but only the promise of one.

Agathonism lacks the shortcomings of its rivals and it has several virtues which none of its rivals has. One of them is the philosophical advantage of harmonizing with a realistic systemic social philosophy, which avoids the myths of both individualism and holism. Another is the practical advantage that it addresses genuine and pressing problems, first of all that of the survival of the human species. Where other ethical theories emphasize pleasure, utility, freedom, justice, or equality, ours puts the accent on survival and its two chief conditions: peace and environmental protection.

CHAPTER 8

ETHICS *ET ALIA*

Ethics is a branch of knowledge that has a direct bearing on action. Hence it is closely related to other branches of knowledge and to all fields of human action. All this may sound platitudinous, but it has been denied by various schools of thought. For example, the emotivist moral philosophers (Ch. 7, Sect. 1.5) claim that ethics has no cognitive content. And many a businessman, as well as many a politician, denies that his actions ought to be constrained by moral precepts. Moreover, there is an entire philosophical school, namely contemporary contractualism, which denounces ethics as a straitjacket or at best as a byproduct of business transactions. (Recall Ch. 7, Sect. 2.4.) Hence the examination of the relations between ethics and its theoretical and practical relatives may not be redundant.

Ethics used to be defined as "practical philosophy". However, until recently modern moral philosophers seldom dealt with practical problems. They limited themselves to stating empty formulas such as "Do what is right", without telling us what is the right thing to do. Or, in the wake of the so-called linguistic turn of philosophy, they confined themselves to analyzing some ethical concepts, norms, and doctrines. In either case they avoided coming to grips with burning and pressing practical problems demanding the taking of sides, e.g. for or against social justice, for or against nuclear disarmament, and for or against the use of violence.

This purely academic orientation of moral philosophy has changed radically over the past two decades. Today applied ethics, rather than theoretical ethics, is the rage, as can be seen by perusing such journals as *Ethics, Journal of Applied Philosophy, Philosophy and Public Affairs, Public Affairs Quarterly, Environmental Ethics, Philosophy and Medicine*, or the *Journal of Business Ethics*, not to mention an amazingly large output of scholarly books on real life moral problems, particularly in the areas of bioethics, political philosophy and legal philosophy. All this is to the good, for an ethics divorced from moral problems is, just like an ontology and an epistemology alien to science and technology, mere intellectual gymnastics. However, concern for

specific practical problems should not make us forget theoretical problems, for applying a discipline to investigating a problem presupposes that the discipline is available — and, as everyone is likely to agree, theoretical ethics is not in good health. Like any other branch of philosophy, ethics does not thrive except when in close contact with other research fields as well as with genuine problems.

In this chapter we shall look into the relations between ethics and other branches of knowledge, from logic to technology. We shall also examine the relations between ethics and certain kinds of action, from defending rights to saving lives, and from doing business to waging war.

1. ETHICS AND KNOWLEDGE

1.1 *Ethics and Logic*

The emotivists subscribe to Hume's dictum: "Reason is, and ought only to be, the slave of the passions". More explicitly, reason should only serve to devise the best means to ends that are themselves beyond reason, i.e. that are opaque to analysis and impregnable to criticism. It must be admitted that Hume was partly right: Certain "passions" are not to be reasoned out. These are the basic needs or drives, those which must be met if we are to survive. And there is the passion to know, which in the case of basic science is not the slave of any other passion.

On the other hand there are "passions" that must be controlled for the sake of either prudence or morality: They are our wants, desires, or wishes. In particular, we must examine and check those wants the pursuit of which may endanger lives or put the well-being of others at risk. As a matter of fact we do so all the time. For example, most of us do not live to eat or drink, are not promiscuous, do not grab everything we like, and do not indulge whatever dream of domination we may have. This control is partly prudential and partly moral, and in either case it involves some arguments or reasonings. Hence we must alter Hume's dictum to read: "Reason is, and ought to be, *inter alia*, the slave of our basic needs and legitimate aspirations, as well as the master of our wants."

We submit that the role of reason is the same in morals and in the theory of morals as in science or in technology: In all four cases reason is necessary to formulate problems, to state, articulate and evaluate

principles, to construct and evaluate arguments, and to examine conceptual systems (e.g. codes of conduct) as to their internal and mutual consistency. But, just as in science, in morals and in ethics reason is insufficient to discover or invent as well as to evaluate principles. In both cases, unless we are dogmatists, we shall resort to experience as well. Indeed, reasonable, experienced and morally sensitive people do not face moral problems as either pure empiricists or pure rationalists. Rather, they behave as ratioempiricists. (For this notion see Vol. 6, Ch. 15, Sect. 2.1.)

To be sure, in order to have basic experiences of good or right we need not engage in reasoning, in particular in calculation. But we do need straight thinking when deliberating about complex choices. "Since thinking and believing must be involved in any decision of doing, the logical validities are a *necessary* condition of any principles of validity of prudence or of morals" (Lewis 1969 p. 69). The irrationalist rejection of reasoning in the realm of morals is bound to lead us to dogmatism, inefficiency, and even evil. This is not to say that reason suffices: it is hard if not impossible to practice morality without moral sentiments and without willingness to compromise on secondary matters. In practical matters it is often better to be reasonable, wise and compassionate, than coldly rational, very well informed, and intransigent.

The role of reason in morals is not confined to the choice of means: It should also control that of goals, particularly since in life goals often get transmuted into means and conversely. For example, sometimes we want freedom in order to learn, whereas at other times we want to learn in order to free ourselves from some yoke. Yet, some philosophers have held that we should shun reason in the moral sphere because it makes no room for moral choice. This view is mistaken: Rationality clashes with arbitrariness and with groundless convention, not with moral autonomy. An autonomous — or, to be more realistic, semiautonomous -- agent can act either rationally or irrationally, depending on her background and on the situation. Rationality (R) and autonomy (A) are mutually independent variables. Hence all four combinations are possible: AR (free agent observes rational rules), $A\bar{R}$ (free agent acts irrationally), $\bar{A}R$ (Slave behaves rationally), and $\bar{A}\bar{R}$ (slave violates rational rules).

Any moral problem, i.e. any conflict between values or the corresponding norms, calls for some ratiocination. For example, if two

values or norms come into conflict, we place them in our value system or in our moral code, and pick the highest of the two. In this case pigeon-holing and comparison solve the problem. The solution of other moral problems involves much more complex reasonings – particularly when we try to extricate ourselves from a moral predicament.

Given any moral or ethical argument, in principle it is possible to construct a counterargument. We distinguish three kinds of dispute over moral arguments: *Type I* controversies, which bear on the facts of the matter (i.e. the situation of the people involved), *Type II*, which concern premises (moral or prudential principles), and *Type III*, which are about inferences.

Type I disputes (over the evidence) are in principle the easiest to settle, unless of course one of the parties has no access to the facts, or refuses to find them out. (Until recently this was the case with the disputes over the manufacture of nuclear weapons.)

Type II disputes (over premises) are the toughest because the choice of principles may be uncritical or it may be tainted by self-interest. For example, the alleged right to first nuclear strike is based on the principle that national security comes before anything else — and if you do not believe this then you are a traitor. Those who dispute the alleged right argue from a different principle, namely that the survival of humankind comes before national security. (They may also add the prudential principle "The more weapons, the higher the risk of war, hence the smaller the security.") When principles clash, only an appeal to their possible consequences may alter deep-seated convictions or even the perception of self-interest.

Type III disputes (over inferences) would seem to be the easiest to settle, but this might be a superficial impression. Do not moral arguments involve commandments, which are neither true nor false? If they do, then moral arguments do not satisfy ordinary logic, which deals with (true or false) statements, but call for a special logic, capable of validating or invalidating inferences involving imperatives, whether categorical such as 'Do not do *a*' or hypothetical such as 'If *a* is the case, do *b*'. As a matter of fact many philosophers have attempted to build a logic of commands or imperatives, i.e. a *deontic* logic or logic of *ought* as opposed to the ordinary logic of *is*. But to this day, after decades of ingenious efforts, no satisfactory system of deontic logic has emerged (Weinberger 1985). In particular, any deontic logic with an underlying modal logic will include Aristotle's law "If *a* is the case, then

a is possible". This principle, correct in the case of real or physical possibility, becomes a moral or legal monstrosity if "possible" is interpreted as "permissible". (For the utter uselessness of modal logic in philosophy, see Vol. 3, Ch. 4, Sect. 1.2.) We shall return to these matters in Ch. 9, Sect. 1.4.

Actually there is no need at all for a special logic of commands or imperatives, and this is for the following reason. Although commands are grammatically and pragmatically different from norms cast in the propositional form, they are conceptually (or semantically) equivalent to them. For example, "Do not teach lies" is conceptually (though neither linguistically nor psychologically) equivalent to "It is wrong to teach lies", or "It is not morally permissible to teach lies". In our system (Chapters 4 to 6) all principles are propositions or easily transformed into such. For example, our supreme principle, "Enjoy life and help live", abbreviates the proposition "Everyone has the right to enjoy life and the duty to help others live". (More on the propositionalization of commands in Ch. 9, Sect. 1.5.)

What holds for moral norms holds for inferences involving such norms. For example, the argument

All revenge is wrong.	$\forall x\,(Rx \Rightarrow Wx)$
Action *a* is revengeful.	Ra
$\therefore$ Action *a* is wrong.	$\therefore Wa$

is an ordinary deductive argument. In conclusion, Type III disputes over moral matters can be settled by resorting to ordinary logic. The moral is: Do not be misled by linguistic wrappings.

Like in other fields, in ethics we may wish to *explain* actions and norms. For example, if we are asked why it was wrong to assassinate *X*, we may respond: 'Because all murder in cold blood is morally wrong'. And if in turn we are asked to explain this norm, we may give a number of replies, e.g.: 'Because everyone has a right to life', 'Because murder debilitates the social bonds', 'Because one murder may incite another', etc.

In addition to explaining actions and norms, we may also wish to *justify* them, i.e. to show that they are morally (or legally) right or just. Note the differences between justification and explanation: (*a*) only human actions are justifiable or unjustifiable; (*b*) we may explain unjustifiable actions, and justify unexplained ones. We justify actions in terms of norms and circumstances. (Excuses are incorrect justifications

when they involve either lies or the opportunistic discarding of some moral principles.) Unlike deontologists, who feel no need to justify their principles, consequentialists do feel such a need. They are committed to showing that their principles are necessary to realize their values. But this is a matter for the next section.

Finally, note that not everyone is eager to engage in moral arguments, particularly if they bear on moral principles. There are several tactics for stopping moral argument. One is to accuse the debater of "betraying our moral tradition", or even of being immoral, just because he dares questioning some received moral principle. Another tactic is to resort to prudential considerations — e.g. "What you propose to do is morally right, but I won't go along because it is too dangerous". Finally, one may claim that there can be no rational moral arguments (only shoutings and countershoutings) because morality is a matter of emotion or of interest not of reason. The first two tactics are of particular interest to moral philosophy for being morally wrong. This is evident in the second case, a bit less so in the first. Those who resort to the first tactics may do so in clear conscience and just out of ignorance concerning the changeability of moral principles. By being dogmatic they are also being, albeit unwittingly, intellectually dishonest. Honesty cannot be fully exerted without some critical disposition.

In short, reason is as necessary in moral and ethical matters as anywhere else. In particular, explicit logical analysis is necessary to validate or invalidate moral arguments and to evaluate ethical doctrines. And such analysis only calls for ordinary logic.

1.2 *Ethics and Epistemology*

If the good and the right are always totally subjective or conventional, then their corresponding theories, namely axiology and ethics respectively, could be independent of epistemology or the theory of knowledge. But if deliberation about values and morals are at least sometimes guided by factual knowledge, then axiology and ethics must involve epistemology.

Now, rational people, whether craftsmen or technologists, lawyers or physicians, scientists or scholars, usually give reasons, good or bad, for some of their valuations and decisions, in particular those of the moral kind: When questioned they do not resort to taste or custom but to facts. For instance, we say that object A is good for person B as shown by experience C; or that action A is right for individual B because it

meets a basic need C of B. So, as a matter of fact, far from *opposing* values to facts, rational people often evaluate and decide in the light of their knowledge of facts: They seek knowledge in order to evaluate correctly or act rightly. Hence valuation and deliberation about action, as well as decision and action, *connect* values to facts instead of detaching them. Consequently axiology and ethics, far from being alien to epistemology, must somehow be related to it.

Irrationalists and conventionalists are bound to countenance absurd valuations, decisions, and actions. (Curiously enough, both positivists and existentialists believe in the basic irrationality of all valuation and decision: See Albert 1985.) Subjectivists, if consistent, can easily skirt moral problems, for they have no reason to believe that other people have the same basic needs, hence the same basic rights and duties, as they. An anti-realistic epistemology encourages one to overlook the differences between what is objectively good or right, and what only seems to be good or right, since such an epistemology has no way of telling reality from appearance. On the other hand a realistic epistemology helps us make correct evaluations and decisions, and perform right actions, for realism enjoins us to face facts instead of telling us that everything concerning values and morals is subjective, whence "anything goes" in their regard.

A realistic epistemology will encourage the testing and eventual review of moral codes and ethical theories, for it will ask how they fare in the real world. Now, any test of ideas is both conceptual and empirical. (See Vol. 6, Ch. 12.) The *conceptual test* of a moral code consists in checking whether it matches the underlying value system, i.e. whether the rules in the code enjoin us to realize our values. And an *empirical test* of such a code consists in checking whether the observance of the code does indeed bring about the desired results. In principle any such test could be experimental, but in practice it is usually observational.

As for the test of ethical theories, we must begin by recalling that, in our view, an ethical theory is a theory about morals, in particular about the roots and functions of moral codes. Such a theory may or may not fit the facts in a satisfactory fashion until new order. For example, hedonism is false because (*a*) healthy people are naturally active and the exclusive pursuit of pleasure causes boredom, and (*b*) utter selfishness is discouraged by all societies, even those the official ideology of which is egoistic. Likewise sociologism, or the view that morality is

nothing but a social control device, is false for overlooking moral sentiments as well as the inner springs of action, i.e. needs and aspirations. By resorting to some findings of psychology and social science we have combined conceptual with empirical test procedures. At the same time we have taken it for granted that ethics is or can become scientific, whence there is no frontier between ethics and science. (See Bunge 1960, 1961. More on the evaluation of ethical theories in Pollock 1988.)

However, it might be objected that morality and ethics have nothing to do with epistemology and science because moral codes prescribe actions, and ethical theories justify morals, whereas epistemology and science describe and explain. In other words, it would seem that, whereas science and epistemology are about what *is*, morals and ethics are about what *ought to be*. But this objection is incorrect for the following reasons. Firstly, every science contains prescriptions or rules, e.g. for making observations and experiments, and even for stating laws; and epistemology has a normative chapter, namely methodology, which studies such prescriptions. Secondly, any realistic moral code is supposed to fit real people, with their needs and wants, abilities and shortcomings, rather than ghosts or saints. Unrealistic morals are useless, except perhaps as subjects of doctoral dissertations. Thirdly, putting any moral precept into practice amounts to transforming what *is* into what *ought to be*, i.e. to guiding the system of interest (which may be the agent herself) from its current state to the desired or goal state. And if we wish to accomplish such a transformation in an efficient manner, we had better get hold of the relevant scientific or technological knowledge.

Another reason for clarifying and strengthening the ties between the theory of morals and the theory of knowledge is this. Moral action presupposes moral responsibility, which in turn requires an adequate understanding of the problems involved as well as of the available means. The philosopher does not help attain such an understanding if he holds the conventionalist thesis that decision is prior to knowledge rather than the other way round. A realist epistemologist, on the other hand, will not fail to see that responsibility involves knowledge: that an irresponsible person is one who does not know better, or who ought to know better. Responsible individuals do not rush heedlessly into action but make use of the knowledge required to bring about the desired outcome: they join the moral and the prudent. (Recall Ch. 6, Sect. 2.2.)

The Stoics were right in holding that there is no virtue without knowledge. Moreover we may define "wisdom" as virtue together with knowledge.

However, there are cases where information may have to be partially suppressed in order to guarantee moral or legal impartiality. For example, justice is represented as a blindfolded woman, to suggest that we should all be equal before the law. Rawls's "veil of ignorance", to be worn by the distributors of goods and burdens in the mythical "original position", is an application of the same idea to distributive justice. School uniforms have a similar function, namely to veil differences in "initial endowments". The refraining from telling certain disagreeable truths out of compassion is a further example of deliberate suppression of information. So is the avoidance of information overload in scientific or scholarly research, but this time in the service of insight. Refraining from using information of some kind for the sake of impartiality, compassion, or insight, is very different from making it up, as is the case with the "useful lies" of the pragmatists and with the pretenses or *as ifs* of the fictionalists. Hence none of the cases cited above, which refer to the utilization of knowledge, not to its gathering, supports an irrationalist, fictionalist, or pragmatist epistemology.

In short, realistic, hence efficient, morals, and true theories about moralities, call for the assistance of a realistic epistemology.

1.3 *Ethics and Ontology*

Axiological and ethical absolutism hold that values and morals are above mundane matters, whence axiology and ethics have no ontological commitment: like logic, they hold in all possible worlds and come what may. Thus Tolstoy's Kantian Levin in *Anna Karenina* (Pt. 8, Ch. 12): "If goodness has a cause, it is no longer goodness; if it has consequences — a reward — it is not goodness either. So goodness is outside the chain of cause and effect".

In our view every factual discipline has ontological presuppositions and in turn poses ontological problems. (See Vol. 3, Introduction and Vol. 6, Ch. 14, Sect. 2.1.) Since value theory and ethics deal ultimately with facts, namely valuations, decisions, and actions, they must depend on ontology. Take for example the old question: What is worse, a natural calamity such as the collapse of the solar system, or a sin, however venial? The answer depends on one's ontology. According to a supernaturalistic ontology, since nature is far below the City of God,

stealing a penny is worse than the destruction of the ozone layer, whereas according to naturalistic ontology it is the other way round.

We take it that ethics presupposes a solution to certain ontological problems, such as those of the nature of mind and the possibility of freedom. In turn it poses certain ontological questions, such as whether materialism is compatible with high moral ideals or whether, on the contrary, it is necessarily piggish. Let us take a quick look at some of these problems, starting with that of the nature of mind.

Consider two extreme positions: those of eliminative materialism and of spiritualism. According to the former we do not have minds but are genetically programmed automata. Clearly, if this is true then we can have neither moral feelings nor a conscience, and consequently morality makes no sense except perhaps as a reward and punishment schedule designed exclusively to protect our precious genomes. On the other hand, if we have an immaterial and immortal soul, we may feel free to use the body: our own with dissoluteness, other people's with cruelty. After all, in either case we shall be affecting "only" the material component of the person, which is perishable anyway. So, both vulgar materialism (or physicalism) and psychoneural dualism condone incontinence and cruelty. (But of course consistency is rare. Thus Epicurus, a physicalist, was an ascetic and taught not to harm; and Mother Teresa, another ascetic, alleviates the sufferings of the dying.)

On the other hand, according to emergent materialism (Vol. 4 and Bunge 1981), incontinence and cruelty are wrong, because whatever is done to a person's body affects his mental processes, which are brain processes of a very special kind. The physicalist hangman feels no compunction because there is no mind to be murdered; not does the dualist hangman, because the soul is detachable from the body. Only the emergent materialist has a good case against the death penalty and, a fortiori, against mass murder, in particular war. He knows that every person is the unique, unrepeatable outcome of an original genetic combination and a unique learning experience; that every normal person has a mental life, in particular a pricking conscience, and can make a unique contribution to other people's lives; and that he has only one life, so he had better make the most of it for himself and others.

Likewise the emergent materialist admits free will and even attempts to explain it in terms of spontaneous (stimulus-independent) neuronal activities (Vol. 4, Ch. 4, Sect. 5.1, Hebb 1974 and Bunge & Ardila 1987). Thus he rejects both classical determinism ("Freedom is

illusory") and classical indeterminism ("Freedom is for real and it violates the laws of nature"). In particular, he rejects the sophism "Freedom is the knowledge of necessity", coined by Spinoza and adopted by Hegel, Comte, and Engels. Curiously, this was the secular version of the Christian dogma that only the knowledge of the true religion can make us free. In either case freedom is equated with the awareness of servitude. But of course this is the very antithesis of active freedom or *potestas agendi*: in a world that is preordained either naturally or preternaturally there is no choice, let alone the possibility of creating new alternatives to whatever options are given us.

This is not to deny that knowledge (of chance as well as of necessity) facilitates the exercise of freedom. In particular, knowledge of some laws of physics and chemistry has allowed engineers to design artifacts that have freed us *from* some natural constraints, others that enable us to *do* things that our ancestors did not even dream of — and still others which have created new servitudes. Therefore not only deterministsl like Spinoza and Voltaire but also indeterminists like Eccles and Robinson (1985) are wrong in holding that free will is incompatible with the laws of physics and chemistry.

In short, freedom is neither the knowledge of necessity nor an attribute of the immaterial mind: instead, it is the ability of some highly evolved brains to make choices and create new alternatives overcoming, though not overlooking, certain external constraints. Without freedom there would be neither virtue nor sin, neither credit nor blame, neither pride nor remorse. It makes no sense to expect a praying mantis to feel remorse for eating her mate, or to blame a robot soldier for killing, because neither of them has the ability to change its program. Only humans, and perhaps a few other higher animals as well, can be credited for goodness or blamed for evil. Emergent materialism makes sense of morals because it accounts for freedom.

However, let us not exaggerate the range of our freedoms. We are never totally free, self-directed, or autonomous, only partially so, for we cannot escape our animal condition or our social bonds. Even the freest of individuals satisfies certain biological and social laws and constraints. Moreover, the great majority of humans are shackled to misery and oppression. Those few who do enjoy a certain measure of freedom do so for observing at least some of the rules of the game, and often at the price of the servitude of others, particularly their spouses and underlings.

Given that we are only partially autonomous (self-directed), any moral philosophy that postulates either that man is autonomous (e.g. Kant's) or heteronomous (e.g. Spinoza's) is unrealistic and therefore useless. We are free to choose between right and wrong, or good and evil, provided we can tell them apart and have the courage and the means to do so. Even so, our freedom to grapple with moral problems is rather limited. Firstly, most moral problems are thrust upon us, often unexpectedly, so that we may not be well prepared to solve them: We do not enjoy the freedom of inventing moral problems the way we invent chess puzzles or mathematical problems. Secondly, the moral problems we confront arise in social circumstances that are for the most part not our own creation and are largely beyond our control. Thirdly, whether we seek to solve such problems on impulse or after careful deliberation, we always have limited resources (time, strength, connections, etc.) to solve them efficiently. In short, we are free but only in some regards and to some extent.

A third ontological problem that must be solved before engaging in ethical theorizing is that of the reality of conflict and harmony, in particular competition and cooperation. An ethical theory that presupposes the Heraclitean view that all is conflict, or Leibniz's view of universal harmony, is too unrealistic to succeed as a guide to life. An effective ethical system must be based on an ontology admitting both competition and cooperation, and even combinations of both, on all levels of reality. Ours does so (Vol. 4, Ch. 4, Sect. 5.4, and Appendix B, Sects. 2.3 and 2.4, and Bunge 1981.) Hence it makes it possible to combine egoism with altruism, self-reliance with mutual help, competition with cooperation. We shall come back to this in Ch. 10, Sect. 2.4.

So much for some of the ontological presuppositions of ethics. Now for the problem whether materialism leaves any room for morals. We saw above, when discussing the problem of free will, that it does. Yet since Antiquity spiritualists have been claiming that materialism is immoral, because high ideals are the opposite of base matter. Actually spiritualism, not materialism, is the enemy of moral idealism for holding that all of the moral principles are immutable and lack a natural and a social basis, so that they must be accepted as supraempirical dogmas for all time (Ingenieros 1917). However, it is true that vulgar materialism or physicalism, particularly when combined with classical determinism, has just as little use for morals as fatalism, whether secular or religious. But, as we saw a moment ago, emergent materialism is very

different, for it admits both (bounded) freedom and the need for a morality rooted to individual and social welfare.

In short, ethics and ontology are intimately connected. Ontology is ethics-free, but ethics has ontological inputs (presuppositions) and outputs (problems). Hence a false ontology may inspire a wrong ethics, and this may in turn raise ontological pseudoproblems. Some of the many woes of contemporary moral philosophy have ontological sources. But this will not be seen unless it is realized that all of the branches of philosophy hang together. Recall Figure 0.1 (Introduction).

1.4 *Ethics and Science*

Ethics and science are related in two ways: There is the ethics of scientific research, and there is the science of ethics, or scientific ethics. The former is the investigation of the moral code governing scientific research, whereas the science of ethics is the scientific study of the roots and functions of moral codes. We have attempted to sketch the latter in the foregoing, so here we shall only grapple with the former.

Some of the rules that govern scientific research are strictly moral, whereas others are methodological as well as moral, and finally others are only methodological. For example, the rule that commands giving credit where credit is due, is moral but not methodological. Indeed, a plagiarist who steals good results is a baddie but not necessarily an incompetent worker. On the other hand the rules that command not to doctor empirical data, much less to make them up, and to seek and accept expert criticism, are both moral and methodological. The same applies to the rules that enjoin us to seek and defend the truth, and refrain from covering up the defects or limitations of one's research, withholding information, and distorting science in the interest of ideology. Finally, the statistical sampling rules are purely methodological. But of course any deliberate disregard for methodological vouchsafes is a breach of the ethos of science. See Table 8.1.

We call *endomorality* the moral code of scientific research. Unless observed, travesty is bound to result. Therefore any definition of "science" which overlooks the endomorality of scientific research is defective, possibly to the extent of being incapable of helping diagnose fraud. In other words, any adequate definition of the concept of science must include a reference to its moral code, which is designed to encourage and protect the search for truth, i.e. the pursuit of adequate (though not necessarily iconic) models of reality. (For more on the

TABLE 8.1. The partial overlapping of scientific method and scientific morals: a sample.

Moral rules	Give proper credit. Do not make experimental animals suffer. Do not waste.
Moral and methodological rules	Do not doctor data. Check for truth. Seek expert criticism.
Methodological rules	Begin by choosing a problem and formulating it clearly. Look for systematic errors in the experimental design. Disregard data involving discrepancies larger than 3σ.

morals of science see Cajal 1941, Bronowski 1959, Snow 1959, Bunge 1960, Sjoberg Ed. 1967, Monod 1971, Max-Planck-Gesellschaft 1984.)

The endomorality of science harmonizes with a realistic epistemology and it clashes with conventionalism, constructivism, fictionalism, and pragmatism — all of which deny the possibility of objectivity. These anti-realistic epistemologies do not account for the aim of scientific research, which is to understand reality, and consequently they do not fit the ethos of science, which is designed to encourage and protect the search for objective truth.

Science is *the* field where success depends exclusively on the finding of *true* data, the construction of (approximately) *true* hypotheses, and the design and utilization of efficient methods for finding *true* data or for checking hypotheses for *truth*. The Nobel prizes in natural science are supposed to be earned for outstanding true findings concerning reality, or for breakthroughs in the search for new methods for finding factual truths — not for introducing conventions, inventing fictions, or designing commercially or politically successful contraptions. On the other hand in technology success depends on social demand as well as on truth. And in business and in politics falsity often pays off, and only failure is penalized. Therefore the pragmatist redefinition of "truth" as that which promotes life and success, and of "error" as that which does not, is orthogonal to the endomorality of science. (See a vehement

attack on the pragmatist doctrine of vital lies in Lee 1912.) The current popularity of antirealistic epistemologies is an alarming indicator of the popular misunderstanding of science.

We call *exomorality* of a field of knowledge that part of its moral code which concerns the social responsibility of its practitioners as such. And we submit that the exomorality of the community of basic scientists is composed of a single injunction, namely *Thou shalt produce and teach good science*. Basic scientists are to blame if they fail to honor this precept, in particular if they commit frauds or teach lies. But they cannot be blamed for unwittingly producing knowledge that others may use for evil purposes. Indeed, given that the goal of basic scientific research is to understand the world, not to control or alter it, the basic scientist as such has no opportunity for evil-doing — and usually no ability either. The nuclear bomb was designed by engineers not by nuclear physicists: the latter only provided some of the knowledge utilized by the former. Chemical and bacteriological warfare are analogous. In short, basic science is morally (and politically) neutral with regard to society, in that its sole function is to enrich culture (Bunge 1988a).

This is not to say that scientists are incapable of influencing the social process. They do so every time they alter our world view, and every time they find something that is utilized by industry or government to manage or mismanage the world. Suffice it to recall the profound and lasting influence exerted by the scientific work of Newton and Rutherford, Darwin and Mendel, Smith and Marx, to mention only a few. All original scientists are unwitting actors, or at least extras, in the human tragicomedy, because science happens to be the nucleus of modern culture and the wellspring of technology, which is in turn the engine of modern industry. Still, it remains true that the social responsibility of scientists is not nearly as heavy as that of technologists, businessmen, bureaucrats, and politicians.

Still, it is often claimed that, whereas natural science may well be morally neutral, social science cannot because it deals with social problems, many of which involve social conflicts, e.g. between the propertied and the dispossessed, so that the social scientist must take sides with one of the conflicting parties. This is certainly the case with applied social science and sociotechnology, for they are concerned with social policies and programs. But it is not the case with basic or pure

social science, which, if partisan, is ideology not science, hence cannot serve as an objective basis for the design of social policies and programs. (Vol. 7, Ch. 4, Sect. 4.1, and Ch. 5, Sect. 4.2.)

Mainstream economics is a case in point. No doubt, some theories in this field are suspect for assuming a purely economic model of man (see e.g. Sen 1977 p. 336) and for overlooking the emergent properties of social systems. Worse, some of them are undisguised manifestos in defense of special interests groups: see e.g. Robinson & Eatwell (1973). In particular, the neoclassical theories not only assume but also recommend selfishness, and they ignore such problems as poverty, militarism, and environmental degradation: they are not only scientifically defective but also immoral. On the other hand there are a number of perfectly objective and morally neutral ideas in economics, that can be used now for good purposes now for evil ones. Thus a Leontief input-output matrix, an econometric model, and a model for the rational exploitation of a fishery or the rational management of a firm need not be ideologically loaded, hence morally committed.

In short, basic science, whether natural or social, has a rigorous internal moral code. Its only social responsibility is to keep healthy.

1.5 *Ethics and Technology*

We shall understand 'technology' in the broad sense, namely as the science-based discipline engaged in designing (not manufacturing) artificial things and processes, whether inanimate like a computer, living like a cultivated plant, or social like a factory. (See Vol. 7, Ch. 5.) Accordingly not only engineering but also agronomy, management science and the law are technologies.

Technology has its own endomorality or internal code of conduct. It overlaps partially with that of science because both seek the truth, hence both call for intellectual honesty. But for technology truth is a means to an end, namely usefulness to somebody; hence accuracy and depth are expendable if they conflict with practicality, cost efficiency, or some other typically technological desideratum. Indeed, the technological imperative is "Thou shalt only design useful artifacts or processes, even at the price of some inaccuracy or some loss of depth". This stands in sharp contrast with science, where accuracy and depth are paramount whereas practical utility plays no role. (See Vol. 6, Ch. 14, Sect. 2.2.)

The endomorality of technology is more lax than that of science. For one thing whereas the scientific community penalizes or even ostracizes

the plagiarist, technologists are often encouraged to copy or steal. In fact, many technologists are asked to imitate existing artificial things or processes while marginally observing the patent law, and some specialize in industrial espionage. None of these activities reflects on their professional standing. As well, whenever high quality conflicts with low cost or large benefit, the latter is likely to get the upper hand. See Table 8.2.

Whereas the exomorality of the scientific community is tiny ("Supply good science"), that of technology is or ought to be huge because the implementation of any technological project alters reality, and most artificial changes are likely to benefit or harm certain groups of people. Just think of the social and environmental changes caused by technological innovations over the last two centuries. In view of the enormous power that technology gives business and government, the technological community ought to adopt a far more strict code of conduct including in the first place the norm "The survival and welfare of humankind should take precedence over the interests of employer or client". This rule entails (informally to be sure) the norms "Minimize the undesirable social and environmental impact likely to be produced by any technological innovation", and "Refuse to obey, or even blow the whistle, when ordered to design anything that is likely to hurt the public interest". Regrettably, most technologists are more eager to embark on new exciting projects, or to humor their employers or clients, than to allow their hands to be tied by moral precepts. This attitude is exemplified by E. Teller's comment on J. R. Oppenheimer's objections to constructing a hydrogen bomb: "He objected to the H bomb merely

TABLE 8.2. Some characteristic values and moral norms of science and of technology.

Values	Moral norms
Basic science	
Truth	Do not lie.
Depth	Do not withhold information.
Research freedom	Do not skirt problems.
Originality	Challenge received opinion if necessary.
Technology	
Usefulness	Do not design anything useless.
Truth	Be truthful to employer or client.
Efficiency, reliability	Be loyal to employer or client.
Low cost and low risk	Check for flaws that may put lives or monies at risk.

on moral grounds". The transition from "morals" to "mere morals" accompanies the metamorphosis of the moral agent into a moral moron.

However, in most cases the engineer working in civilian industry or in government does not often face any moral conflicts and, when these do come up, he can solve them in consultation with his employer or client. Here is a short list of types of problem of this kind. (More in Schaub & Pavlovic Eds. 1983.)

(i) *Quality control* in design and production. Economic motivations: uniformity and business continuity. Moral motivation: honesty. (Limitation: Quality and cost are inversely related, whence a compromise between the two must be worked out.)

(ii) *Human engineering* in the work place. Economic motivations: cost minimization and worker satisfaction. Moral motivation: personnel welfare.

(iii) *Risk control*: keep risk to personnel, consumer and public below the tolerance level. Economic motivation: high risk products or processes jeopardize prestige and give rise to expensive law suits. Moral motivation: protection of well-being.

(iv) *Social impact*: minimization of undesirable social changes. Economic motivation: abrupt social disruption leads to economic disturbance and labor unrest. Moral motivation: minimization of sufferings caused by the need to adapt to quick drastic changes.

(v) *Environmental impact*: minimization of undesirable environmental changes. Long term economic motivation: protection of natural resources. Moral motivation: respect for public property (air, water, natural beauty, etc.).

In all of the above cases the long-term interests of the technologist and his employer coincide with those of the workers and the public, so that the moral problem can be given a technological solution. But in other cases the technologist comes up against economic greed, political ambition, or sheer ignorance. In such cases he has a moral obligation to blow the whistle, i.e. of objecting, and even going public, if pushed into projects that are technically flawed or likely to hurt the public interest (Nader, Petkas & Blackwell Eds. 1972).

Apparently few technologists ever feel moral qualms, and even fewer bring moral problems to the public attention. And when they do so they can expect to be fired (Westin 1986). In a few places there are laws protecting the whistle-blowers from reprisals, and professional societies may be expected to lend them lukewarm support. But the only

effective way of preventing the implementation of projects likely to endanger public welfare is active citizen participation. This can go from public protest and public consultation (e.g. through referenda) to interactive planning involving representatives of governmental and non-governmental organizations in the planning process itself. We shall return to this subject in Ch. 10, Sect. 2.5.

The technologists whose work is bound to have a large and immediate impact on society are the sociotechnologists, in particular the normative economists, jurists, political scientists and policy analysts acting as government employees or consultants. They all deal with policies and large scale plans, hence they all face moral problems, because every social policy and every social program is likely to affect the well-being of many people — or it would not be designed. (Vol. 7, Ch. 5, Sect. 4.2.) Inevitably, the sociotechnologist is often torn between the wishes of his employer or client, and the demand to tell the truth. When such conflict involves the public interest, it is his professional and moral duty to advocate the best policy and criticize its rivals (Bodde 1986).

It is often required that any social policy or program satisfy Pareto optimality: that it favor at least one member of society without harming others. And harm is considered admissible if the victims can be compensated for — the Kaldor-Hicks criterion. The two criteria are exclusively economic: they presuppose that everything can be priced. In particular, they overlook economically imponderable damages such as those caused to environment or culture. Moreover Pareto optimality is not really optimal. It is best to aim for large scale actions from which *everyone* stands to gain, such as massive job creation, sanitation, or literacy programs. Since the economy is only one of the subsystems of a society, asking economists to design all social policies and programs is to court disaster and to abdicate moral responsibility.

The question is often asked whether technological progress is good or bad. There are three possible answers to this question: technolatry, technoclasm, and technorealism. *Technolatry* is of course the naive view that all technological progress is good. This view is false because (*a*) many technological advances occur in the field of military technology, which is not surprising since more than half of the engineers in the world are employed in that field, and (*b*) much technological progress makes us increasingly dependent upon vulnerable or intensive energy-consuming and entropy-increasing systems or processes. (See Neirynck 1986.)

Technoclasm, the thesis that all technological advance is bad, is

equally wrong, if only because (*a*) technological progress has doubled the life expectancy, and halved the working hours, in the industrialized countries in the course of two centuries, and (*b*) we need technology to repair the ravages caused by unbridled industrialization, to tap alternative energy resources, and to ensure the survival of civilization — only, the technology we need is strictly civilian and dedicated to the welfare of humankind.

The rational alternative to both technolatry and technoclasm is *technorealism*, which may be summarized as follows. Firstly, whereas some artifacts are univalent, others are ambivalent. Among the former some (e.g. tooth brushes) are good in certain respects, whereas others (e.g. offensive weapons) are bad in all respects; as for ambivalent artifacts, they are good or bad depending on the jobs they are used for — e.g. a knife can be used for cutting bread or throats. Secondly, technology is a means not an end; hence there can be either progress or regress through technological advancement. Thirdly, all technological progress aiming at enhancing human welfare is good in some respects and bad in others — e.g. in its unintended negative side effects. Fourthly, all advances in offensive military technology are bad, and so are all of the sociotechnological advances aiming at exploiting or oppressing. Fifthly, every technological innovation must be assessed in its social context: we must ask whether society really needs it and can afford it. Sixthly, every large scale technological project should be approved or rejected by the citizenry on the advice of experts. (See Agassi 1985.) We shall come back to the problem of the democratic control of technology in Ch. 10, Sect. 1.4.

Finally, let us tackle the question whether science and technology can only determine means, never goals, for the latter are always determined by needs or wants. There is some truth in this view. In fact, technology helps meet any need and any realistic desire. But it is not true that science and technology have no business in the choice of goals. Firstly, the means-goal distinction is not fixed but fluid: What begins as a means may end up by becoming a goal and conversely — e.g. killing in self-defense may turn into killing for pleasure. (See Schlick 1925 Ch. 13.) Given such interconvertibility of means and goals, science and technology may help determine goals, albeit indirectly. Secondly, science and technology alone can help us evaluate goals prudentially, by telling us whether a given desideratum is feasible, who can expect to benefit from it and who be harmed by it, and so on. We

conclude then that science and technology can help determine goals as well as means. But we hasten to add that science and technology are not to replace morality: they can only supplement it. Knowledge without moral conscience may only be the tool of wickedness.

To sum up, whereas in the worst of cases scientific knowledge is worthless, technological knowledge can be harmful, hence it must be subjected to external regulation. After all there is such a thing as forbidden knowledge (Rescher 1987).

1.6 *Summary*

Far from being an autonomous discipline, ethics depends not only upon axiology but also upon logic, epistemology, and ontology. Indeed, there is no correct moral argument or ethical theorizing without adherence to logic. Nor can we make morally right decisions, or set up and check ethical principles, unless we assume a realistic epistemology. Only the moral nihilist can adopt an anti-realist epistemology, and only the moral conservative can fail to understand that we must get to know the world before we attempt to foist our moral principles upon others. What ought to be cannot be unless we learn what it takes to exercise our rights and perform our duties. Nor could we be efficient moral agents in a ghostly world, for all action is a lawful transformation of a concrete thing by another — the agent. Hence any realistic ethical theory presupposes an ontology of concrete (material) things behaving in a lawful fashion. Don Quixote was inefficient because he mistook his own fantasy for reality. To be sure his page Sancho was enough of a realist and a materialist — but, alas, he had little moral sense.

Ethics also has close ties with science and technology. To begin with, ethics should and can become scientific, i.e. consistent with the scientific findings about our needs and desires, sentiments and social condition. In addition, the moral philosopher may wish to study the moral norms that govern or ought to govern the specific activity of scientists and technologists. He cannot fail to notice that, unlike basic science, technology has a heavy social responsibility, for every major technological project has moral (or immoral) presuppositions and implications. If he does pay attention to the moral dimension of technology, he cannot remain indifferent to the ways technology is being misused: he will join in whistle blowing.

In sum, ethics does not exist in a vacuum. Not only does it grapple with morals, hence with values. If scientific and relevant it uses findings

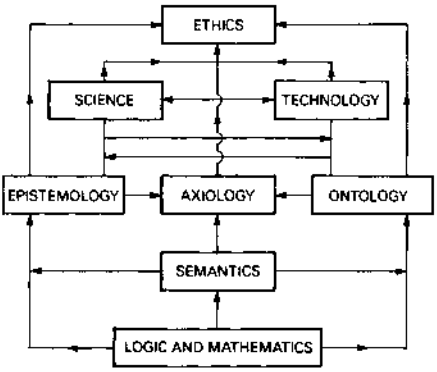


Fig. 8.1. The fields of knowledge presupposed by scientific ethics.

of other philosophical disciplines as well as of science and technology: See Figure 8.1. Isolation breeds irrelevance and obsolescence.

2. ETHICS AND ACTION

2.1 *Praxis and Ethics: Generalities*

In this and the subsequent sections we shall be concerned with some of the moral problems that arise in the exercise or practice of a skill or a branch of knowledge concerned with the alteration of real things. We shall not deal with the design of artificial things, such as new drugs, or of processes, such as medical treatments, but with the implementation of such designs. Such implementation goes through four phases: prescription, supervision, actual execution, and evaluation. For example, a physician may prescribe a medical treatment, whereas nurses, laboratory technicians, physical therapists and others will help apply and supervise the treatment, and the doctor herself or some colleague will evaluate its results. We shall focus here on professional practice rather than on the original conception and laboratory test of the design in question. We shall concentrate on the moral aspect of actions as specific and yet so similar as those of the general practitioner and the appliances serviceman, the lawyer and the paramedic, the civil servant and the teacher, the manager and the foreman, all of whom see to it

that the state of certain systems be changed in certain prescribed manners.

Every professional code is a set of rules, some technical, others moral, and still others mixed. The technical rules prescribe in broad lines how to proceed, the moral ones what to do in cases of moral conflicts — e.g. between means and ends. Though distinct, the technical and the moral rules are mutually related. A first link is between professional competence and professional morality. The rule states that professional competence is necessary, though insufficient, for professional morality. (Shorter: $M \Rightarrow C$.) Put negatively: It is morally wrong for people lacking professional competence (as a result of lack or deficiency of professional training) to pursue a professional activity, for they can cause harm. For example, people who have not trained as scientific psychologists are not morally qualified to tamper with mental patients.

A second link is between professional conduct and the interests of the person who employs the services of the professional. The rule is that the professional shall use his best professional knowledge and judgment, and is to work hard, to advance the interests of his employer, client, or patient. A third rule is that, in case of conflict between the professional's employer, client, or patient, and the public interest, the latter is to prevail.

The teacher's professional code is one of the simplest, for it boils down to three rules: "Learn well the material you are to teach", "Do your best to help pupils learn and enjoy the learning", and "In case of conflict between truth or didactic efficiency, on the one hand, and authority on the other, bow to the former". All three rules may be regarded as moral as well as technical. The hardest to observe is the third: witness the uncounted Monkey Trials since the beginning of formal education. By preserving academic freedom, the institutions of higher learning have minimized, though not eliminated, the conflicts between truth and authority. Still, almost anywhere in the world it is imprudent to teach certain philosophical, political, or even biological theories.

It takes moral courage to practice any profession. The seriousness of the moral predicament of a professional is roughly proportional to his ability to protect or harm other people's interests — vital, economic, political, or cultural. Thus political and business ethics are trickier than

medical or legal ethics, which in turn are harder than the ethics of craftsmen. Let us take a quick peek at a few special professional ethics.

2.2 *Bioethics*

The main moral problems involved in biomedical research and practice are those raised by patient treatment, tampering with life, human and animal experimentation, and genetic engineering. The first in the list is also the oldest, and it is still being dealt with, in the main, on the basis of the Hippocratic Oath, the central precept of which is "Do no harm". Medical progress is making this precept increasingly hard to apply, for a number of medical treatments involve high risk, high cost, or both. A physician who is to adhere strictly to the Oath would refrain from recommending brain or open heart surgery and from prescribing drugs with serious side effects, and he would definitely refuse to practice euthanasia.

It seems then that the negative utilitarian precept "Do no harm", though appropriate at a time when most medical interventions were ineffectual or counterproductive, has become obsolete. (Recall Ch. 7, Sect. 2.5.) Medical ethics and the criminal law have to be reformed on the basis of the more general maxim "Enjoy life and help live". If a patient cannot enjoy life for being afflicted by a severe illness, his doctor should be free to offer him any promising treatment, regardless of the risk it may involve. And if all hope were lost, the patient should have the right to be put to painless death. Physicians have the duty to help live lives worth living, not to prolong hopeless misery. The law should accordingly be reformed in such a way that physicians be guided solely by science and compassion, not by fear of legal sanctions. This reform is particularly necessary wherever the insurance industry is ready to compensate patients or their dependents for any real or imaginary medical malpractices.

Clinical psychology and psychiatry pose particularly interesting ethical problems. The very first problem is that of professional competence. Many psychotechnologists are not properly qualified to tamper with the mind, for not knowing any scientific psychology: they are dangerous quacks. A second problem is that many people who are willing to take doctors's orders object to a clinical psychologist's using behavior therapy to correct some behavioral, emotional or cognitive disorder. This attitude has a theologico-philosophical root, namely mind-body dualism. For dualists it may be all right to tamper with the

material body, but sacrilegious to manipulate the immaterial and possibly immortal soul. The biological view of mind as a brain function (Vol. 4, Ch. 4) avoids this groundless myth and suggests that a psychological or psychiatric treatment is ethical provided only that it is (*a*) scientifically sound, (*b*) practically effective, and (*c*) compassionate.

The more serious moral problem raised by psychotechnology appears when the patient engages systematically in serious antisocial behavior, such as rape or murder, and refuses to submit to treatment. Extreme libertarians claim that nobody has the right to force such patients to undergo any treatment aimed at correcting their misbehavior. Hence libertarians are left with only two options, neither of which is in the best interest of either the subject or society, namely life sentence and capital punishment. In our view, if a psychiatric or psychosurgical treatment can transform a professional criminal into a normal individual capable of being reinserted into society, such treatment should be forced on him for his own good as well as for the good of society. (More on the so-called paternalistic society in Sect. 2.3.) Again, this course of action fits in with the maxim "Enjoy life and help live".

We discussed earlier (Ch. 6, Sect. 1.2) the moral problems of tampering with life, chiefly in relation with abortion and euthanasia. Let the following suffice here. The so-called pro-life advocates, who attack abortion but not mass-murder (i.e. war), argue that an embryo and a fetus are human beings, presumably for having being endowed with an immaterial and immortal soul. But the point is that neither embryos nor fetuses satisfy any of the accepted definitions of a *person*: both are *parts* of a woman and neither has a *mental* life. Indeed (*a*) a fetus cannot become a separate individual unless it has been delivered, and (*b*) the mental faculties emerge only after birth and they take several years to develop. So, the pro-life movement has no scientific basis. Furthermore it violates the norm "Enjoy life and help live", for (*a*) it interferes with freedom and well-being, and (*b*) it helps the multiplication of unwanted children, most of whom are bound to be unhappy and a burden to society. Abortion is the lesser of two evils. It is an evil that can be avoided by using contraceptives and discouraging sexual promiscuity. A pro-love movement would be more moral and constructive than the pro-life movement.

As for euthanasia, the very first thing to do about it is to forget the etymology of the word, i.e. 'good death'. It is a poor defense of

euthanasia to claim that certain people are "better off" dead than alive, or that they maximize their own utility by being put mercifully to death: dead people are not people, hence they cannot have any utilities; they cannot even be "worse off" than the living. The question is not one of good death but of bad life. If life can no longer be enjoyed, e.g. because of extreme pain or helplessness, there is no point in prolonging it. The patient who asks for a lethal injection does not compare his present state with that of his own corpse and decides that the latter is in a better state: he simply cannot stand life any longer. To deny his last wish is sheer cruelty. (More on euthanasia, abortion and related matters in Spicker & Engelhardt Eds. 1977, Ferrater-Mora & Cohn 1981, and Cragg Ed. 1983.)

A minor way of tampering with life is to use medicine to improve the performance of athletes. The unethical medical coach of a commercial sports team may be asked to administer massive doses of masculine hormones in order to build herculean muscles, or amphetamines to allay fatigue, disguise pain, and create rage. The most effective way of eradicating such malpractices is to discourage professional sports, which serve the same functions as gladiatorial games and bull-fighting, namely to entertain the uneducated, to raise their level of violence, and to divert their attention from social issues. A good society invests in amateur sports and in general health care what our societies spend on commercial sports and Olympic games.

Let us now examine experimentation on humans and other animals. Over the past two decades the international biomedical community has reached a consensus concerning the conditions under which medical experiments may be conducted on human subjects. These conditions include informed consent, professional competence, correct experimental design, supervision by a professional committee, and compliance with the law of the land. Still, as with any other norm, there are areas of penumbra, hence sources of controversy. For example, should an experiment be performed even if its underlying hypotheses contradict a solid body of biomedical knowledge or if, far from involving any hypothesis, it is conducted merely "to see what happens", in adherence to the classical empiricist methodology? (Answer: No. In the first case because it would be immoral, in the second because it would be scientifically barren on top of being immoral.) How are the interests of children, the physically or mentally handicapped, and prison inmates to be protected? (Answer: By the conditions listed above, except that the

responsibility of the supervising committee is now greater.) In every case the rights to life and well-being should be protected, and whenever risk is involved the experimental subject should be compensated. For example, a life prisoner should be allowed to gamble his life for freedom. But it would be morally monstrous to experiment on prison inmates without their consent and without compensation, for this would not help them live. Again, the standard is "Enjoy life and help live".

How about biomedical experiments on animals? Many societies for the prevention of cruelty to animals, and more recently a movement for animal rights, have opposed animal experimentation on various grounds. The oldest (Hume's and Bentham's) is that animals can suffer, and that it is cruel to inflict suffering. (Descartes had cleared the way to animal experimentation by holding that animals are soulless machines.) Another is that, by being compassionate with animals, we may become more compassionate with people. A third is that there are no lower animals: that all are equivalent and with the same rights as us. The first two reasons are valid but not compelling: all they tell us is to refrain from unnecessarily cruel experiments — e.g. that whenever possible the experimental animal should be anesthesized. The third reason is invalid because (*a*) the animals endowed with more highly evolved central nervous systems are objectively superior to the others in matters of cognition and emotion — in particular their sufferings can be the more intense, and (*b*) rights are not innate or natural but either conquered or given by humans. (See Landsell 1988.)

If the animal rights activists had their way, research and teaching in zoology, medicine, veterinary medicine and other fields would grind to a halt. In particular, the laboratories of experimental ethology, where the optimal conditions for domestic animal welfare are studied, would be shut. Consequently the well-being of all animals, in particular of humans and farm animals, would be considerably lowered.

The morally right thing to do with regard to animal experimentation is (*a*) to stop mindless experimenting, of which there is a lot, and (*b*) to review carefully the experimental designs, as well as the living conditions of the experimental animals, with a view to minimizing their suffering. As a matter of fact serious efforts are being made to improve these conditions. But the major source of useless experimentation, animal or otherwise, namely the dearth of clear original hypotheses, is still strong. This offers philosophers of science an opportunity of being kind to animals by way of being ruthless to mindless empiricists.

Finally comes the turn of genetic engineering or molecular biotechnology. Humans have manipulated genes, albeit indirectly, since the Neolithic Revolution that occurred between ten and fifteen thousand years ago. They have done so by artificially selecting animals, plants, and even bacteria. They have seldom if ever had any moral qualms about it, not even when they produced animals suffering from severe genetic handicaps. But contemporary genetic engineering poses new tough moral problems, because it can redirect bioevolution almost overnight and therefore without enough time to weigh unforeseen consequences. In particular, the bioengineer may unwittingly produce viable monsters, particularly micro-organisms, capable of wiping out entire biopopulations — e.g. our own.

Appalled by this possibility, a number of eminent molecular biologists and genetic engineers signed, and initially observed, the Asilomar Convention (1975), which involved a moratorium on genetic engineering until such time as a better grasp of the mechanisms of genetic change could be had. This proposal proved impracticable because genetic manipulation is a prime source of important fresh knowledge — and because its practitioners are curious, ambitious and competitive. ("If I quit the race others will win it".) The upshot is that most of them have decided to ignore the moral issues.

There is little that the moral philosopher can do in this case except (*a*) to ask the genetic engineers to use their knowledge only to design useful organisms (such as frost-resistant plants, and bacteria capable of synthesizing medical drugs) and to help repair genetic defects (such as schizophrenia), while refusing to use it in weapons design, and (*b*) to advocate strict patent regulations concerning new biospecies, to prevent health and environmental hazards.

2.3 *Nomoethics*

Let us call *nomoethics*, or its hybrid and cacophonic synonym *jusethics*, the intersection of moral philosophy and legal philosophy, i.e. the discipline that studies the moral problems encountered in legal theory and practice. The very first problem of nomoethics is that of its very existence and, more generally, that of the relation between ethics and legal philosophy, and the corresponding relation between morality and the law. There are several possible views on this matter: See Figure 8.2.

According to legal positivism (Kelsen 1949) morality and the law are mutually disjoint, whence their corresponding theories are disjoint as

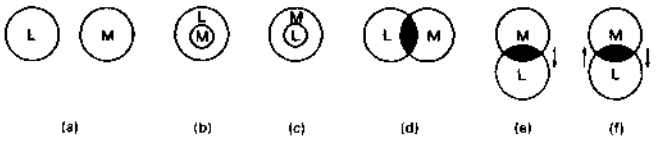


Fig. 8.2. The possible relations between the law (L) and morals (M), hence between legal theory and philosophy, on the one hand, and ethics on the other. (a) Legal positivism: L and M are disjoint. (b) contractualism: M is included in L. (c) Natural law: the right legal system is contained in M. (d) Common sense view: L and M have a nonempty intersection. (e) The high-minded view: the law should be dominated by morality. (f) The realistic view: L and M interact. Sometimes morals inspire legal reforms, at other times the latter alter the prevailing morality.

well. They could never come into conflict with one another, and there is no point in subjecting a legal code to moral criticism. Kelsen's motive for advocating this divorce between the law and morality was to turn jurisprudence into a rigorous discipline — a branch of logic free from metaphysics, psychology, politology and history. The resulting "pure" theory of law consecrates any consistent legal code, no matter how monstrous it may be, and it ignores the beneficial influence that morals have exerted on the law over the centuries.

Legal positivism is wrong-headed because the whole point of jurisprudence, as of ethics, is not argument for argument's sake but the content or meaning of value judgments and moral norms: logic is only a tool for analyzing them (Bruera 1945). By defining rights and duties in terms of legal codes, logical positivism embraces radical ethical relativism. It does not allow us to ask whether a given legal code fails to enshrine certain moral rights or duties, and whether we have any (moral) right to advocate law reforms on moral grounds. To the legal positivist the expression 'unjust law' is a contradiction in terms and therefore senseless. To anyone else, in particular a legal reformer, it makes perfect sense: A law is (morally) just if and only if it matches the corresponding moral right or duty.

A second view on the relation between the law and morals is that the former includes the latter. This is, presumably, the position of a radical consistent contractualist, namely that ethics is a branch of contract law. (Recall Ch. 7, Sect. 2.4.) This view is just as unhistorical and morally

corrosive as legal positivism. Actually it is even worse, for at least Kelsen allowed for psychological conflicts between adherence to the law and observance of moral principles. The contractualist despises any moral norms that do not derive from contracts. All he wants is for the parties to sign on the dotted lines.

The third view, that the law is or ought to be included in ethics, does not seem to have been defended, not even by the natural law school. Moreover it is indefensible, for a legal code is nothing but a set of permissions and prohibitions, whereas a moral code may support us in our pursuit of justice, and an ethical theory may justify such pursuit; moreover a moral code may goad us to perform supererogatory actions and to refrain from immoral practices that are not penalized by the law.

The fourth view is that morality and the law are on the same footing but have a large overlap (Hart 1961). The evidence for this view is abundant: (*a*) every legal code contains or presupposes some moral norms (sometimes called 'frame' or 'constitutional' principles); (*b*) every legal code contains or presupposes a number of general principles that are moral as well as legal, such as "Innocent until proved guilty", "No crime without law, and no punishment without crime", and "No retroactivity"; and (*c*) there are legal wrongs that are not moral wrongs (e.g. the breach of a rental lease due to lack of funds), as well as moral wrongs (e.g. failures of reciprocity) that may not be subjected to legal sanction.

The fifth view is an elaboration of the former. It holds that morality and the law (hence ethics and legal philosophy as well) intersect in such a manner that the former has or ought to have the upper hand. In other words, the law should conform to morality, not the other way round. The virtue of this view is that it encourages law reformers to match (right) moral norms. For example, warmongering, the commodification of certain goods (e.g. blood), and the broadcasting of information concerning a reformed criminal's past, ought to be criminalized. However, the view has a flaw: it does not cover the case when a progressive legislature passes a law contravening an obsolete moral precept. For example, some parliaments have abolished the death penalty despite the opposition of public opinion, which clung to the *lex talionis*.

The sixth and last view is that there should be a vigorous interaction between morality and the law, hence between ethics and legal philosophy as well. We espouse it for scientific and practical reasons. The former because it matches what we know about the coevolution of

morals and the law. (Recall the outlawing of slavery, serfdom, and torture, as well as the large body of law that accompanies the relief state, and the emerging environmental law.) The practical advantage of the interaction view is that it turns law makers into moral reformers, and it gives moral reformers a say in law reform. Such interactions should contribute to moralizing the law and institutionalizing morals while keeping both evolving along with society.

A good test case is the proposal to decriminalize the sale and use of hard drugs such as heroine and cocaine. The only reason for this proposal is a practical one, namely that such measure would reduce dramatically the price of such drugs and thus undermine organized crime and reduce the number of crimes committed by drug addicts. This is uncertain: there could still be drug cartels, as there are oligopolies and even monopolies in most sectors of a capitalist economy. The only practical solution is to have the state hold the monopoly on hard drugs, and put their distribution in the hands of state hospitals, which can control drug use and persuade some addicts to undergo therapy — as is the case in the United Kingdom and other countries. Besides, there is a powerful moral reason for not allowing any "hard" drugs to be dumped on the free market, namely this. If a vice is not punished it is no longer seen as a vice. Thus smoking was tolerated until a number of municipal governments outlawed it in public places, thus making it clear that smoking in public is antisocial, hence immoral. In short, morality and the law should go hand in hand.

So much for the relation between ethics and legal philosophy. Let us now examine a few specific and topical problems, starting with the question 'What kind of entity can stand trial in a court of law?'. This is a nomoethical question because it involves the notion of personhood. In the Middle Ages not only people but also animals, such as rats and ants, could be prosecuted; nowadays private companies, government departments and other social systems are regarded as legal persons. And some radical environmentalists hold that natural systems, such as forests and rivers, ought to be treated like persons and defended in court by "guardians" against polluters, loggers, and others (Stone 1974).

Only individual human beings can stand trial because they alone are moral agents, hence capable of infringing rights or duties. Companies and governmental services cannot be brought to trial: only their representatives can, and they should bear the responsibility for their own actions. This point is important: guilt and merit, like vice and virtue, are

individual, not collective. Hence punishment and reward should never be collective. Thus, the German people was not guilty of Nazism, even though most Germans seem to have been enthusiastic Nazis as long as they were victorious. As for natural systems, such as rivers and forests, they have neither rights nor duties, so they cannot stand in a court of law. But everyone of *us* has the right to make correct use of them and the duty to protect them from ecovandals.

Most nomoethicians have focused on criminal law, which raises a number of tough philosophical problems centered around that of individual liberty. (See Feinberg 1984—1986.) This specialization has been double-edged. On the one hand it has led a number of philosophically minded lawyers and law-makers to advocate the repeal of harsh punishments and even the replacement of the very idea of retributive or punitive justice with that of corrective (or reeducating and rehabilitating) as well as reparative (or compensating) justice. But on the other hand it has, at least in the hands of the libertarians from Mill (1859) on, stressed the importance of rights to the detriment of duties.

The very first nomoethical problem raised by criminal law is that of elucidating the concept of moral crime as different from that of legal crime, or crime punishable by law. We stipulate that a *moral crime* is either (*a*) an action that interferes with someone else's exercise of her moral rights or duties, or (*b*) the failure to do one's moral duty. This definition covers crimes of omission as well as crimes of commission. Ontologically, only the latter are events or processes. Yet some philosophers have proposed unifying the two by stating that, if X refrains from doing Y, X makes the *negative* event not-Y happen. But this is verbal trickery, for the notion of a negative event is self-contradictory: there is no event if nothing happens. (Recall Vol. 3, Ch. 5, Sect. 1.) The person who neglects his duties is not acting but he allows certain undesirable events to happen: he is to blame for the events which he could have prevented.

Whether moral or legal, of commission or of omission, a moral crime may be environmental, biological, economic, cultural, or political. Until recently custom and legislation ignored environmental crimes, such as the dumping of toxic wastes. And even now most cultural crimes, such as playing a ghetto-blaster and publishing lies, go unpunished. In a just society most moral crimes are criminalized, and all legal crimes are morally condemned. In our societies a number of moral criminals are awarded decorations or positions of power.

Most criminal codes presuppose the general or frame principle included in the *Déclaration des droits de l'homme et du citoyen* of 1789: "The law ought to prohibit only actions harmful to society". Accordingly self-destructive behavior would not be a sufficient warrant for state interference. Yet all of the states in civilized nations practice what has been called 'legal paternalism', abhorred by the libertarians. In fact they prohibit voluntary enslavement and contracts without a dissolution clause, as well as drug abuse and self-mutilation; they force us to be inoculated against infectious diseases, to wear seat belts, and to send our children to school; in many cases they also force us to make contributions to our pension plans, to refrain from smoking in public places, and so on and so forth.

As a rule only the wealthy object to legal paternalism and insist that liberty is more valuable than welfare. Most of us have the converse preference and some of us advocate a welfare state with freedom and without alms. (See Ch. 11, Sect. 3.) Almost everybody understands that, when harming ourselves, we may inconvenience or even hurt others. For example, the reckless car driver puts the lives of others at risk, he taxes the public road security and the health systems, and increases the automobile insurance premia. However, any state protection measure should be introduced democratically and it should not hinder private initiative. Wherever the state becomes responsible for everything, the individual abdicates responsibility and thereby ceases to be a moral agent, as a consequence of which the law displaces morality.

Radical libertarianism is not the solution to the deficiencies and excesses of the relief state. For one thing it overlooks the immorality of leaving the weak unprotected on the excuse that legal paternalism infringes on individual liberty. Dworkin (1979 p. 96) put it succinctly: "better ten men ruin themselves than one man be unjustly deprived of liberty". But there is a third option: eleven reasonably happy and free human beings.

Secondly, radical libertarianism faces what may be called the Law and Order Dilemma. If the individual takes the law in his own hands, he becomes a vigilante, a lyncher, an outlaw: he ends up by destroying the very legal order that he claims to protect. If on the other hand he relies on an all-powerful law-enforcement body free from democratic control, he favors the emergence of a police state and a praetorian guard ever ready to use its power to squash all liberties. The solution to this dilemma is not to choose between liberty and welfare but to combine

them. Only such combination can avoid the scourges of poverty, oppression, and corruption — which, alas, often come together.

2.4 *Business Ethics*

There are two traditional schools of thought concerning the relation between business and morals. One of them holds that business is amoral, the other that it is immoral. The former claims that economic relations are characteristically amoral, yet naturally constrained by competition. The (ideal) free market would be "the morally free zone", and "Were the world such a market, morals would be unnecessary" (Gauthier 1986 p. 13 and Ch. IV).

Anyone coversant with the business world knows that the amorality thesis is false. Firstly, every business transaction, even between criminals, calls for a minimum of honesty and trust. Even Milton Friedman, the well-know advocate of big business, when stating that the sole social responsibility of business is to make profit, added the caveat: "So long as it [. . .] engages in open and free competition without deception or fraud" (Friedman 1962 p. 133). Morality precedes agreement not the other way round (Ch. 7, Sect. 2.4). When this is not the case the firm and even the entire economy may be at risk: in the long run dishonesty is bad business. The banker Felix Rohatyn (1987) predicted the stock market crash of October 1987 as due in part to the sharp practices of a number of corporation managers and stock brokers. (More on the market and morals in Knight 1935, A. Buchanan 1985, Koslowski 1986.)

Secondly, high technology is not enough to guarantee high product quality: honest workmanship and pride in a job well done are necessary as well. Thus the phenomenal success of the Japanese economy is not just due to its imitation of Western technology, for other nations too have practised technology transfer and failed. The success is due to a combination of technology with economic policy (strong state interference) and morality. The moral factor is this: The social behavior of the typical Japanese is ruled by self-restraint, respect for others, and the sense of duty, rather than by self-interest. (See e.g. Sen 1987.) Japanese capitalism flourishes largely for having tapped a traditional morality rooted in conditions of scarcity and crowding.

So much for the credit side of capitalist business ethics. On the debit side the following points have been noted by uncounted observers and analysts: (*a*) the market is a rat race and as such is immoral, for in it the

weak succumb to the strong, who are not necessarily the better; (*b*) unless checked by labor unions and government departments, the entrepreneur may have no qualms in exploiting his employees, cheating his customers, or contaminating the environment; (*c*) a substantial fraction of the industrial output consists of morally objectionally items, such as weapons, sports cars, electric guitars, drugs, junk food, war toys, and pulp magazines; (*d*) advertisement is designed to increase consumption and much of it is deceptive; (*e*) economic power corrupts just as much as political power: witness white collar crime and the bribing of public servants by companies bidding for government contracts; (*f*) international competition has often led to trade wars and even armed conflicts: witness the colonial wars, notably the First World War. In short, the economy is not without morals — but it is not a morality school either. (See a fair sample of views on business ethics in Snoeyenbos, Almeder & Humber Eds. 1983.)

The above mentioned flaws of the business world have been noted by the second traditional school of business ethics, namely the one holding that business is inherently immoral, so that the expression 'business ethics' is a contradiction in terms. Paradoxically this view is held not only by most Marxists but also by the Christian and Islamic advocates of a return to the Middle Ages, when prices and interests were strictly regulated — whereas the exploitation of serfs and the sacking of "enemies" were not.

Neither of the two extreme views, that business is amoral, and that it is immoral, is adequate. The truth is that (*a*) there is no social — in particular economic — behavior without some moral rules (Ch. 4, Sect. 3.3); (*b*) one cannot pursue one's own interests without any concern for other people's interests, for no one is fully self-reliant; (*c*) every modern economy, capitalist or otherwise, is constrained by laws and regulations aiming at protecting trade, credit, public health, and the environment, by penalizing moral crimes such as fraud and the breach of promise; and (*d*) any firm that wishes to stay in business must observe a minimal moral code, for otherwise it will not earn the trust of its business partners and customers.

As a matter of fact this third view, that business has or must have a moral code, is quickly gaining ground, as may be seen from the *Harvard Business Review* and the *Journal of Business Ethics*. A new code of business ethics is being fashioned and adopted by an increasing number of highly successful American companies (*The Economist*, July 2,

1988, p. 58). Its contrast with the traditional one is summarized in Table 8.3.

In short, whereas the traditional business morality was intended to advance only the interests of the shareholders of a firm, the newly emerging one is supposed to advance those of all its "stakeholders", i.e. all the people likely to be affected by the company's activities. This is certainly in keeping with the universality requirement of all the altruistic ethical theories (Ch. 7, Sect. 3). Still, a number of negative moral features remain: the unequal distribution of the surplus, the domination of the weak (individuals, firms, nations), the promotion of consumerism and waste, the unfettered exploitation of non-renewable resources, and so on. Sweeping reforms will be needed to correct these serious flaws without at the same time suffocating individual initiative and eliminating the creative aspect of competition. We shall address this problem in Ch. 11, Sect. 3.

2.5 *Political Ethics*

The views on the morals of politics are similar to those concerning business ethics. Indeed opinion is divided into amoralism, immoralism, and moralism. Among the amoralists we find not only Machiavelli and

TABLE 8.3. New *vs.* old business morals: a sample of norms.

Old guard companies	Vanguard companies
The only social responsibility of business is to make profit (Milton Friedman).	"The business of business is serving society, not just making money". (From the constitution of the Dayton Hudson corporation.)
Maximize the benefit/cost ratio.	Optimize the benefit/cost ratio.
Milk and, if need be, cheat the consumer.	Seek consumer satisfaction and loyalty.
Disregard environmental concerns.	Respect the environment.
Disregard worker satisfaction: seek only productivity and obedience.	Seek worker satisfaction and loyalty.
Confront and if possible destroy or corrupt the labor organizers.	Bargain and cooperate with the labor unions.
Practice authoritarian management.	Practice participatory management.
Oppose government intervention when prosperous, demand it when in the red.	Accept and if necessary seek government intervention to secure fair business practices.

Lenin but also most politologists, particularly those who swear by game theory. The second group is the large body of public opinion disenchanted with the contrast between election campaign promises and the realities of power. The third group is made up of reform politicians and theorists. The most radical among them is still Aristotle, who held that ethics is a part of what we now call political science (*Nichom. Ethics* I, 3, 1094b).

Every one of the three views contains a grain of truth. Amoralism is correct with regard to the purely technical ("mechanical") aspects of the organization of political activities and public services, which can be entrusted to experts. But amoralism is incorrect in everything else. For example, a party program and a government policy are bound to have moral components because their implementation is likely to favor some social groups at the expense of others: just think of the different ways tax revenues can be used — e.g. to buy health and education or to buy security for the powerful. In short, political amoralism is just as false as business amoralism. It is also morally wrong for holding that the end justifies the means.

The immoralists, i.e. those who believe that politics is inherently and therefore incurably immoral, make their case by listing the varieties of corruption in politics: buying votes, selling government jobs, taking bribes, lying, oppressing, waging offensive wars, invading foreign countries, using the armed forces to quell social discontent, and so on. But the immoralist is wrong in holding that all politicians are corrupt: suffice it to mention Pericles, Gandhi and Palme, not to mention the millions of devoted rank and file political activists who work selflessly for a cause they believe to be good. The immoralist is also wrong in holding that politics cannot be cleansed. In fact democratic politics is a morality school, for it teaches cooperative habits, rational and respectful dialogue, and ideals of public good. Therefore immoralism is false. Worse: it is morally and politically wrong, because it erodes the trust in democracy and paves the way for tyranny.

Let us now deal quickly with a few political questions involving morals. Our first question is: Why bother to participate in politics? The answer is simple: Where people do not participate in politics, this becomes the monopoly of a political class that may not defend the public interest but some special interest, e.g. its own. If we value genuine democracy we must bother to vote, attend meetings, take part in political campaigns, and be ready to serve, however sporadically, in public offices.

Voting, the citizen's minimal obligation in a political democracy, has been the subject of ingenious theoretical studies over the past two centuries. Politologists, from Condorcet to Arrow and beyond, have concluded that no voting decision procedure is good. These "impossibility" theorems are suspect because they all presuppose that every voter attempts to maximize personal gains. In fact people vote for a number of reasons: not only to defend their own interests (as they perceive them), but also out of a sense of civic pride, out of devotion to an ideology, because it feels good to exert a right, and even better to belong to a group, or merely to comply with the law. People vote for a variety of reasons and sometimes at the cost of discomfort or even the risk of physical violence. And, even though no voting procedure is perfect, some procedures (e.g. the French one) are better than others, and any voting is better than none.

Our second question is: Why tell the truth in politics? Why indeed, when lying is so much more profitable in the short run? The moral motivation is obvious. But there are prudential motives too. One of them is that only morons or cynics vote a second time for a convicted liar, or continue to support a government that is caught lying once and again. Another rationale is that democracy involves cooperation in some respect, which requires trust, which calls for truthfulness. In conclusion, in the long run political forthrightness is always the more convenient policy as well as the only moral one.

A related problem is that of the moral status of political compromise. Politics has been called the art of compromise; it is also the art of detour and of waiting for opportunities and making the most of them. Without practising these arts there can be no hope of attaining power or of retaining it. But are such stratagems moral? This depends on whether or not any basic *moral* principle is being sacrificed in the compromise, detour, or postponement. Never mind the ideological tenets: if they were morally wrong to begin with, there is nothing wrong with giving them up. But of course if a politician does change his ideology he has the moral duty to say so. In short, *pace* Weber (1921), the politician may refuse to "sign deals with diabolical forces".

Our next subject is tolerance. The conservative view is of course intolerant. It is also the most natural: tolerance is learned in social intercourse, and political tolerance is a recent acquisition, and moreover not a universal one. It is not yet generally understood that diversity is good, provided it does not involve injustice, because it

presupposes some freedom, it is a condition of progress, and it makes life interesting. Nor is it universally understood that uniformity requires submission and results in stagnation. Even in democratic societies there is strong pressure to conform, and original people are often seen as trouble makers.

Even people who tolerate other people's customs and ideas are often politically intolerant, i.e. conservative — of the right or of the left. Hence they are ready to accept censorship and repression. But there are also liberals ready to protect the right to hold and advocate any doctrine, however intolerant — e.g. racism, aggressive nationalism, and economic elitism. Witness the American Civil Liberties Union. To be sure such open-mindedness and generosity are admirable — but also suicidal. It calls to mind the hospitality extended to the convicted arsonist or criminally insane.

If a good society is to be built or preserved, we must protect the creative nonconformist while controlling and reeducating those who engage in antisocial behavior, be it brawling or rioting, stealing or murdering, warmongering or gunrunning. We should adopt what may be called the principle of *moderate tolerance*: "Tolerate anything except what is sure to hinder the satisfaction of the basic needs and legitimate aspirations of everyone". Once again, the standard is the supreme maxim "Enjoy life and help live".

Patriotism is usually regarded as a civic virtue. Is it really? The answer depends on the kind of patriotism concerned: extreme, middling, or moderate. Extreme patriotism (jingoism, chauvinism) is the same as aggressive nationalism. It boils down to the simple-minded slogans "My country right or wrong", and "My country before any other". The first slogan is immoral for erasing the difference between right and wrong; and it is silly for blinding us to our country's shortcomings, thus blocking any attempt to correct them. And the second slogan is immoral for inciting to war and conquest. In short, extreme patriotism is not virtuous.

Middling patriotism can be summed up in the formula "Everyone ought to advance the interests of his own country". It does not involve blind conformism and it does not incite to international aggression. But, since it does not mention the interests of other countries, it tacitly condones international injustice. Finally, moderate patriotism is encapsulated in the formula "Everyone ought to advance the interests of his own country as long as these do not conflict with the rights of others,

starting with the rights to survival and self-determination". Evidently only this kind of patriotism is consistent with our moral doctrine.

What about violence? Nothing works like fear, particularly the fear of violence, to tame people and force them to abdicate their moral and civic responsibilities. Political violence is morally wrong for violating basic rights, such as the right to life; and it is prudentially wrong because it tends to be self-perpetuating. A good society is internally and externally peaceful: its citizens, particularly its political leaders, use only peaceful means to resolve conflicts. (Such means may go from talks and bargains to mass rallies and passive resistance.) In such a society violence is only justified to repeal individual or collective aggression.

The only effective and lasting way of coping with political violence is by preventing it. This goal is not achieved by strengthening the so-called security forces, because they have a vested interest in keeping conflicts alive, and they may end up by controlling the government. Political violence can only be prevented by (*a*) minimizing the sources of civil and international conflict, (*b*) promoting interpersonal and international cooperation, and (*c*) banning all weapons, from hand guns to nuclear bombs, the world over.

The most serious threats to internal and international peace are posed by the empire builders, the arms industry, the armed forces trained and armed for aggression, and the jingoistic and militaristic ideologists. Some of the latter have had the cheek to attempt to justify war on moral grounds. Thus the first fascist claimed that war brings out the best in man, whence "fascism believes neither in the possibility nor in the utility of perpetual peace" (Mussolini 1932 p. 47). Bergson (1932 p. 26), writing at the same time, knew better: In war "Murder and pillaging, like perfidy, fraud and lying, do not just become licit but also meritorious. Like *Macbeth*'s witches, the belligerents will say: Fair is foul, and foul is fair". Even as he drew his country into World War I, President Wilson admitted that, when at war, people lose their heads and "stop weighing right and wrong". In short, war "makes clear and honest thinking impossible" (Mencken 1956 p. 227). So does military training, for it involves self-abasement, the repression of moral feelings, and abdication of moral responsibility.

Finally, are there just wars? It is usually taken for granted that all national independence wars, as well as all the wars waged in self-defense, are just. (See e.g. Walzer 1977, Calvocoressi 1988.) But no war *can* be just, because it is mass murder and destruction; at most, one

of the *sides* in a war, namely the victim of aggression, can be morally right — provided it limits its actions to repealing aggression and, in case of victory, does not take advantage of the defeated. It is never morally right to initiate an armed conflict, not even in defense of a good cause, because (*a*) the initial goal is inevitably replaced by that of winning at all costs, and (*b*) the cost in lives and resources, as well as the ultimate outcome of the conflict, are hardly predictable. In short, there are no just wars, not even those allegedly waged "to end all wars".

2.6 *Summary*

The exercise of any profession is bound to affect the welfare of some people, hence it must be encouraged or restricted by moral norms. As a matter of fact every profession is ruled by a more or less explicit moral code of its own. A moral code is the more complex, the stronger the social impact of the professional activity.

The only professional ethics that has been explored in some detail is bioethics. However, excessive attention has been devoted to comparatively minor issues such as abortion and euthanasia, at the cost of the neglect of the bulkier issues of public health and preventive medicine. In view of the power attained by surgery, drug treatment and behavior therapy, the Hippocratic Oath ought to be revised. We need a code based on the value judgment that not just life, but life worth enjoying, is the highest value, hence the one to be protected by all means.

Nomoethics, or the discipline that studies the moral problems encountered in legal theory and practice, admits that, far from being mutually disjoint, morals and the law overlap partially. Moreover, they interact, and they should do so more vigorously. One of the central problems of nomoethics is that of distinguishing moral from legal crimes. Classical liberalism holds that the law ought to prohibit only actions harmful to society. By exerting legal paternalism, the relief state goes far beyond the liberal precept.

There are three views concerning business ethics: amoralism, immoralism, and moralism. The first two are not only morally objectionable but also at variance with business practice. Indeed, every business transaction calls for a minimum of reciprocity and trust. The old business ethics, or rather nonethics, centered on the maximization of benefits precept, is on the way out. New winds are blowing in business theory and practice. It is being increasingly understood that management has to serve the interests of all the "stakeholders" of the company

rather than just those of its shareholders. Still, a number of serious moral issues remain unresolved.

In political ethics too there are three schools: amoralism, immoralism, and moralism. The former is wrong if only because every state policy is likely to affect, favorably or unfavorably, the welfare of some people. Immoralism does not fit the facts either: There have been uncounted honest political leaders and civil servants. Any person active in politics faces a number of moral problems, which moral codes and ethical theories ought to help solve. The most serious of all such problems is the legitimacy of violence. It is proposed that violence is only justified in repealing aggression, and that war is the greatest of all crimes. *Si vis pacem para pacem.*

CHAPTER 9

METAETHICS

In Antiquity ethics was regarded as the study of virtue and the good life. From the beginning of the modern period the task of moral philosophers became that of proposing and discussing theories about the moral (as distinct from the legal) rights and duties of all human beings — or at least of all white and adult males. Whether ancient or modern, traditional moral philosophy was directly relevant to real life — so much so that it was also called 'practical philosophy'. But admittedly it was conceptually rather sloppy. The so-called linguistic turn (roughly 1930—1960) did something to correct this shortcoming by focusing on the analysis of key moral concepts, such as those of person, action, responsibility, and norm. By and large, the study of moral problems and ethical doctrines gave way to the study of the "grammar" of moral terms, i.e. the way we ought to talk about morals if we wished to make sense — at any rate to fellow academics in the Anglo-Saxon world. Ethics was displaced by metaethics, and action by talk.

The so-called linguistic turn of moral philosophy proved to be ambivalent. On the one hand it had a healthy effect in that it swept away much obscurity and confusion. Moral philosophy became transparent — just as transparent as the void. Philosophers became very careful about words — so cautious that they said very little, if anything at all, about real-life moral issues. The negative effect of the linguistic turn was precisely this, that it gutted moral philosphy. The model moral philosopher was the gutless academic who avoided moral problems like the plague and remained always *au dessus de la mêlée*. He posed as a technician servicing a machine (language) rather than its user (the moral agent). He lived in a comfortable verbal cocoon that protected him from moral conflicts: his job was to analyze, not to moralize. Worse, his technique proved to be not that sophisticated after all. In fact it was either ordinary language analysis *à la* Wittgenstein II or some logic of norms that raised more problems than it solved.

Since the mid-1960s the pendulum has started to swing in the opposite direction. A new generation of moral philosophers, concerned

about real-life moral issues, has given new life to ethics without, however, returning to the obscurities and confusions of preanalytic philosophy. They have started to wrestle with such moral conflicts as private interest-public interest, peace-national security, industrial growth-environmental protection, liberty-big government, and technological development-welfare. The typical contemporary moral philosopher asks not only what the words 'right' and 'duty' *mean*, but also what right and duty *are*. He is interested in facts as well as in words; in ethics and its subject matter (morality) as well as in mataethics; in political philosophy as well as in moral philosophy. This reorientation of moral philosophy is all to the good. Still, it is only a beginning.

In the present chapter we shall examine the nature of ethics and its relation to the real world: we shall engage in metaethical analysis as a complement of, but not as a substitute for, ethics.

1. SCIENTIFIC AND PHILOSOPHIC ETHICS

1.1 *Ethics as Science and as Philosophy*

In ordinary language and in linguistic philosophy the words 'ethics' and 'morals' are often used as synonymous. In contrast we have been distinguishing morality, as a psychological and social fact, from its study; in particular, we have distinguished moral codes from ethical doctrines. (See also C. O. Bunge 1919.) Actually we must introduce an even finer distinction, namely between (*a*) *moral facts*, such as someone helping a passer-by in distress, (*b*) *moral codes* or systems of moral norms, (*c*) *ethical doctrines* or theories about such codes, and (*d*) *metaethics*, or the study of ethical concepts, principles, and theories. See Figure 9.1.

The *semantic* relation between each of the higher levels distinguished above and the next lower level is that of reference, studied in Vol. 1, Ch. 2. Metaethics refers to ethics, the latter to morals, and these to moral facts or moral agents. Hence ultimately metaethics refers to moral facts or agents. (The composition of two or more reference functions is itself a reference function. Recall our analysis of metanomological statements in Vol. 7, Part 1, Ch. 2, Sect. 1.2.) In other words, the referents or units of moral discourse in either of the three higher levels are ultimately persons or groups. (The higher animals count as persons because they have higher mental capacities: recall Vol. 4, Ch. 4, Sect. 5.2.)

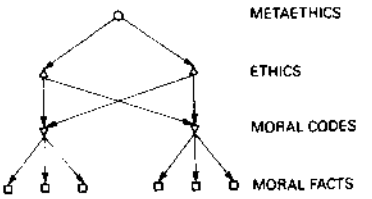


Fig. 9.1. Four levels of moral and ethical items.

The *epistemological* relation between any of the higher levels and the next lower one is that of studying or investigating. In particular metaethics analyzes, systematizes and evaluates ethical ideas; and ethics studies, systematizes and evaluates morals. But morals regulate moral facts (or rather agents) instead of studying them. The difference between metaethics and ethics is analogous to the difference between the philosophy of science and science. And the difference between ethics and morals is similar to the one between factual science and reality. Morals are "out there" in social behavior as well as "in here", in the individual's conscience (or rather in his brain).

Metaethics and ethics can be descriptive, prescriptive, or both. That is, they may study their object or regulate it. In particular, metaethics may rule ethical theories, which in turn may regulate moral codes: metaethics is a sort of conscience of ethics.

Ethics may be scientific, philosophical, or both. On the one hand, *scientific* ethics, or moral science, studies moral behavior from a psychological, sociological or historical viewpoint, whereas *philosophical* ethics studies the same subjects from a logical, epistemological, methodological, ontological or axiological viewpoint. On the other hand, metaethics is a strictly philosophical discipline even though it ought to admit, nay seek, scientific inputs. The union of philosophical ethics and metaethics may be called *moral philosophy*.

The very first task of metaethics is to characterize ethics. We shall do so following the general definition of research field proposed in Vol. 6, Ch. 14, Sect. 1.2. We stipulate that *ethics* is representable by the ten-tuple

$$\mathscr{E} = \langle C, S, D, G, F, B, P, K, A, M \rangle,$$

where

C = the community of ethical investigators;

S = the society hosting C;
D = the referents of $\mathscr{E}$;
G = the general outlook or philosophy of $\mathscr{E}$;
F = the formal background or collection of formal tools employed in $\mathscr{E}$;
B = the specific background of (information relevant to) $\mathscr{E}$;
P = the problematics or collection of problems of $\mathscr{E}$;
K = the fund of knowledge or ethical tradition;
A = the aim of $\mathscr{E}$;
M = the methodics or collection of methods of $\mathscr{E}$.

Our distinction between scientific and philosophical ethics, sketched a moment ago, may now be spelled out in some detail:

	SCIENTIFIC ETHICS	PHILOSOPHICAL ETHICS
C	The *scientific ethics community* is composed of the psychologists and social scientists who study current or past morals in a scientific fashion;	The *philosophical ethics community* is composed of the philosophers who study morals in a philosophical manner;
S	the *society* hosting C is capable of encouraging or at least tolerating the professional activities (research, teaching, publishing, participating in meetings, etc.) of the members of C;	
D	the *domain* or *universe of discourse* of $\mathscr{E}$ is	
	the collection of persons and social groups as regards their moral beliefs and codes of social behavior;	the collection of moral codes and the family of ethical doctrines — past, present, or future;
G	the *general outlook* or *philosophical background* of $\mathscr{E}$ is	
	the one common to all factual sciences: a naturalistic ontology, a realistic epistemology, and the ethos of the search for truth;	a family of explicit or tacit semantical, epistemological, ontological and axiological views, as well as the ethos of the search for truth;
F	the *formal background* of $\mathscr{E}$ is the collection of logical or mathematical concepts, theories, and methods taken for granted and utilizable in the course of ethical inquiry;	
B	the specific background of $\mathscr{E}$ is a collection of data, hypotheses, theories, and techniques, borrowed from psychology, the social sciences, and philosophy, possibly relevant to the conduct of ethical inquiry;	

P	the *problematics* of $\mathscr{E}$ consists of	
	problems concerning the description, explanation and evaluation of moral codes;	problems concerning the logical form, meaning, consistency, and validity of moral codes, as well as the analyses and systematization of moral ideas;
K	the *fund of knowledge* of $\mathscr{E}$ is the collection of	
	propositions (in particular data and hypotheses) and procedures (in particular techniques) considered correct and obtained by members of *C* at previous times;	propositions, still regarded as worth discussing (even if thought to be incorrect), and obtained by members of *C* at previous times;
A	the *aims* or *goals* of the members of *C* are	
	to enrich our knowledge of morals, to understand (in psychological or sociological terms), evaluate, and help perfect them;	to enrich our knowledge of moral concepts and norms, to understand (with the help of conceptual analysis), evaluate, and help perfect them;
M	the *methodics* of $\mathscr{E}$ consists in conceptually and empirically scrutable (analyzable, criticizable, checkable) procedures, in the first place the scientific method.	conceptual (in particular logical, mathematical and semantical) analysis and rational reconstruction (theory building), aided by imagination and scientific findings.

By definition, scientific ethics is included in the union of psychology and social science, whereas philosophical ethics is part of philosophy. However, the former makes use of concepts elucidated by the latter, which in turn may utilize findings of the former. Consequently scientific and philosophical ethics, far from being mutually disjoint, have something in common. If the former is a genuine science, every one of its components will change, however slowly at times, as a result of scientific research in its own field as well as in the relevant sciences and in philosophy. If approached scientifically, philosophical ethics will interact vigorously with scientific ethics, so that it will change over time, however slowly, in response to such interactions as well as to internal research. Given the close relationship between scientific and philosophical ethics, we define *ethics* as the union of its scientific and philosoph-

ical aspects. (Strictly speaking we must take the pairwise unions of all ten components of the two ten-tuples.)

Ethics is not limited to the study of moral norms: it must also systematize or codify them, evaluate them, and check whether in fact their observance contributes to the explicit or tacit goal of morality, e.g. the satisfaction of basic needs and legitimate wants. Furthermore, ethics is not only descriptive but also prescriptive: it attempts to build or reform viable systems of moral norms. In our view any such system should be (*a*) internally *consistent* (non-contradictory), (*b*) *compatible* with the relevant natural and social sciences, (*c*) *viable* — i.e. it must be possible for an ordinary human being to live up to it, and for a society to adopt it; (*d*) *balanced* — i.e. it must combine rights with duties; (*e*) *flexible*, i.e. it must make room for extenuating and aggravating circumstances; and (*f*) *humane*, i.e. designed to facilitate the pursuit of well-being. Any person or group capable of coming up with such a moral code deserves being called an "inventor of the future" (Augusto Bunge 1915).

1.2 *Scientific and Axiological Basis*

In the preceding chapter we argued that ethics has a number of scientific and philosophical inputs, among them social science and value theory: Recall Fig. 8.1. In the preceding section we characterized ethics through a list of ten items, one of which is the specific background *B*, i.e. the body of (scientific and philosophical) knowledge that ethicians take for granted or borrow. In particular, we claim that ethics presupposes, and partially overlaps with, both axiology and social science.

Our thesis is unpopular. The most popular views on the matter are that ethics is either part of theology (e.g. Augustine and Aquinas) or an autonomous discipline (e.g. Kant and Moore). Other views are that ethics is only based on value theory (N. Hartmann); that it is contained in value theory (R. B. Perry) or conversely (C. I. Lewis); that it is an offshoot of biology (E. O. Wilson), a part of psychology (M. Schlick), of sociology (E. Durkheim), or of political science (Aristotle, J. Bentham, A. Sen); finally, that ethics, together with the theories of decision and of games, forms the science of rational individual and collective choice (J. Harsanyi). Let us examine quickly these views.

The theological view of ethics is at variance with the whole of ancient Greek philosophy and with modern philosophy, starting with Hobbes and Spinoza. This is not to deny that some ethical theories are

theological, and that the corresponding moral codes are religious. The point is that it is possible to deliberate on moral problems, and to reach correct decisions, without bowing to religious dogmas. Moreover, it may be argued that adherence to such dogmas implies abdication of moral responsibility and denial of accountability to others. (Recall Ch. 7, Sect. 1.1.)

This does not entail that ethics is autonomous. On the contrary, it depends on psychology, anthropology, sociology, and other sciences, for, after all, it studies social behavior, i.e. behavior capable of affecting conspecifics. Ethics also depends on value theory because all rational prescriptions are preceded by rational evaluations. A moral prescription that were not regarded as good for the purpose in question would be either arbitrary or perverse. The right is defined by the good not the other way round (Ch. 4, Sect. 1.1). See Figure 9.2.

The alternative views listed a moment ago are unacceptable for the following reasons. Firstly, ethics is based on more than value theory: it must make some use of scientific findings if it is to evaluate correctly the various moral codes, i.e. if it is to check whether they work in practice. A fortiori, ethics is not contained in value theory. Nor does the converse relation hold, for many a value judgment is not moral. As for the relations between ethics and science, it is not true that all of the former is contained in the latter: the inclusion relation holds only for the scientific part of ethics, not for its philosophical part.

Finally, ethics is not a component of a separate science of rational choice, because there is no such science. In particular, decision theory and game theory are not reliable guides for choice because (*a*) they

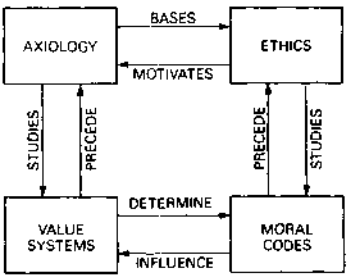


Fig. 9.2. Relations between ethics and value theory as well as between their referents.

contain no substantive knowledge and (*b*) they make use of subjective values and subjective probabilities (Ch. 3, Sect. 3.3). Rational choice, particularly when it is likely to affect others, is based on objective knowledge. For example, a decision to perform surgery must be based on the medical information that it is necessary to restore health, on the value judgment that health is preferable to illness, and on a risk assessment based on statistics. Another example: Think of the strategic analyst who employs game theory to find out whether a first strike with nuclear missiles would be convenient, and in doing so makes subjective estimates of the most probable number of casualties and uses a subjective estimate of the probability of retaliation. Some science, some morality!

1.3 *Constraints on Moral Norms*

Every explicit and viable moral code is constrained by (*a*) the nature of the world, in particular society, (*b*) a general frame or "moral constitution", and (*c*) a set of second-order rules (or meta-rules, or metanorms, or metaethical principles). The first or factual constraint is the collection of biological, psychological and social regularities and circumstances that determine whether a moral rule is necessary for some purpose or merely a pious hope.

The *general frame* or "moral constitution" (Kolnai 1978 pp 113 ff) is a set of general principles about man and the world: it is part of the general outlook *G* introduced in Sect. 1.1. A moral constitution is to a moral code what the constitution of a land is to its positive laws. Thus the frame of a theistic morality will contain the postulate that man is God's favorite creature, whence he must rely on divine providence and benevolence. On the other hand a naturalistic frame will include the assumption that man can only rely on himself and others, and is accountable only to himself and others. It is obvious then that the frame or constitution determines largely the content of a moral code.

The *meta-rules* of a normative system, be it moral, legal, or technical, are norms that regulate the content and scope of the substantive rules, i.e. the precepts that govern all of the actions of a certain type. The nomoethical principle *No crime without law* is a case in point. It is a principle about norms and their application. It does not tell us what the laws are nor what to do in a particular case — except to do nothing in case there is no (legal) crime. Two ethical examples are the Principle of Utility when applied to rules rather than acts, and Kant's

requirement of universality of moral norms. Both constrain the work of the moral philosopher but neither tells us what to do in any particular situation. They are rules about rules not actions. See Figure 9.3.

In one of its versions, Kant's celebrated Categorical Imperative is the metanorm that all moral rules ought to be universal or universalizable. (This metaethical postulate has sometimes been mistaken for the Golden Rule, which refers to actions not rules. Kant's is clearly a "second-order principle": Broad 1930 p. 120.) Two reasons have been offered in support of it, one logical and the other moral. The former is that, if exceptions to a rule were admitted, the rule would not qualify as a principle or general law. However, this is not a valid reason, for one may state a universal law or rule in such a way that its antecedent covers the allowable exceptions. Example: "Unless knowledge of the truth is bound to harm the innocent, it ought to be told".

The second reason is that all human beings are equal and therefore deserve to be treated equally and, in particular, to be subjected to the same moral rules — which for Kant concerned only duties. This ground is shaky because, as a matter of fact, people are not equal, and one of the marks of a fair moral code is that it enjoins us to compensate for inequalities. For example, children, the aged, the handicapped and the sick deserve being treated better than able-bodied adults because they are at a disadvantage. It would be unrealistic and unfair to bestow exactly the same rights, and demand the same duties, regardless of needs and abilities.

This is not to deny the need for universal moral norms, such as "To each according to her needs, from each according to her abilities". Every viable moral code has some such universal norms. But every realistic moral code should also contain some *special* norms, applicable

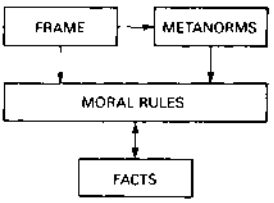


Fig. 9.3. Constraints on moral rules: factual, "constitutional", and metaethical.

to all human beings with similar needs and abilities and in analogous circumstances: one for normal children, another for retarded ones; one for normal adults, another for cripples; one for manual workers, another for intellectuals, and so one. These special norms should be superimposed on the general ones. Every such special rule would be *binding on everyone in the same category*. By proceeding in this way one obtains a *family of moral codes* that combine maximal universality with maximal flexibility. Universality satisfies the ideal of equality, and specificity matches the variety of persons and circumstances. See Figure 9.4.

1.4 *Norms and Normative Systems*

The very existence of norms and systems of such poses a number of interesting philosophical problems. One of them is ontological: What are they — conventions, laws, or a mixture of both? Another is logical: What is their logical form and how can we reason correctly with them? A third is of a semantical nature: What is their meaning and truth value, if any? A fourth one is epistemological: How do we get to know them and how are they related to descriptive knowledge? A fifth is methodological: How can they be validated or justified? In this and the following section we shall only take a peak at each of these questions.

Human beings satisfy laws of nature and invent, obey or break rules of social behavior. Whereas laws are invariant patterns of being and becoming, rules are historically changeable artifacts. (Vol. 5, Ch. 9, Sect. 3.2.) However, in morals and elsewhere not all rules are mere conventions. Some of them are *law-bound*, i.e. grounded on objective laws. Thus the rule of mutual help is law-bound insofar as (*a*) no individual is fully self-reliant, and (*b*) the persons who abide by the rule fare better than those who do not. We submit that all *valid* moral rules,

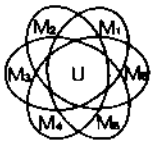


Fig. 9.4. The rosette of particular moral codes M_1 to M_6. Their intersection U is the universal moral code, that holds or ought to hold for every human being.

unlike most grammatical rules and many legal rules, are law-bound rather than conventional.

The distinction between valid and invalid moral rules is philosophical rather than scientific. Indeed, social scientists do not distinguish between morals and mores, between the right and the customary: their business is to ferret out the norms that regulate social behavior, be they moral, amoral, or immoral from a given point of view. Thus they are likely to treat the prevailing rules concerning truthfulness, loyalty, and the taking of life, on the same footing as the rules concerning kinship relations, property rights, or religious worship. On the other hand philosophical ethics, or moral philosophy, is supposed to propose grounds for or against moral rules: it draws a clear distinction between a valid moral rule and a mere custom. Thus a humanistic moral philosophy will condemn murder, whether individual or massive, even though in many countries murder is a growth industry. In sum, every socially accepted morality is a *mixture of genuine moral norms and customs*, some of them conventional. This explains why any given moral code takes on different forms in different social groups.

Moral and legal norms have traditionally been approached in an authoritarian way, i.e. they have been construed as permissions, prescriptions or proscriptions, no reasons or causes being offered. In particular, Kant thought that all moral norms are categorical (unconditional) imperatives of the form 'Do *x*!' or 'Don't do *x*!'. (A hypothetical or conditional imperative is of the form 'If *x*, do *y*!', or 'If *x*, refrain from doing *y*!'. 'Shut the door!' is a categorical imperative and 'If there is a draft shut the door!' a hypothetical one, though of course neither expresses a moral norm.)

It is mistaken to think of moral norms as orders, because many of them are injunctions, recommendations, or even proposals. Witness "Love thy neighbor" and the Golden Rule. A rational person will use imperatives only for issuing orders, not for couching moral norms: he will express the latter as *sentences*. Moreover, if he happens to be a consequentialist moral philosopher, he will prefer *conditional* sentences hinting at the reasons or causes for doing or refraining from doing whatever may be in question. For instance, instead of barking 'Don't litter!' he may prefer to say 'If you care for others, or wish to avoid being fined, do not litter!. And if he proposes this as a universal norm, he will state it thus: 'For every *x*, if *x* is a conscious person, and *x* cares for others or wishes to avoid being fined, *x* refrains from littering'. The

antecedent of this general conditional is the *ground* or *reason* for its consequent. The advantage of the declarative over the imperative form is that sentences express more or less true or false propositions, hence they can be argued about with the help of ordinary logic, and tested with the help of empirical data. They cease to be dogmas to become testable hypotheses. (Recall Ch. 8, Sect. 1.1.)

An authoritarian ethics requires some logic other than ordinary logic in order to analyze moral principles and their relations, because imperatives do not satisfy the laws of deductive logic. This is why the standard logical analysis of norms is performed in terms of some system of *deontic logic*, which in turn is an interpretation or an extension of one of the 256 possible systems of modal logic. (See e.g. Lemmon 1965.) This interpretation construes 'p is possible' as 'p is permissible', or 'Pp' for short, where P is called a 'deontic operator'. A prohibition is analyzed as $\neg Pp$ (p is forbidden), and a duty as $\neg P\neg p$ (p is obligatory). The concept of a right does not occur in such a system: only gracious permissions and ungracious obligations and prohibitions occur in it. When the concept of a right is added (as in Kanger 1957), a far broader system results.

There are several problems with deontic logic. One is that, as we have just suggested, it takes it for granted that morality is a grim affair that has no room for enjoyment and aspiration. Second, it consecrates authoritarianism instead of inviting criticism and testing. Third, it does not involve a sound interpretation of modal logics. For example, whereas "p is necessary" implies p, its deontic interpretation "p is obligatory" does not imply p (or "it is the case that p"), for many an obligation is not met. Likewise, whereas p implies that p is possible, it is not true that p implies that p is legally or morally permissible, for one will commit actions that are not permissible. For this third reason Weinberger (1985) and a few others have concluded despondently that half a century of inquiry into the field of the logic of norms has ended in impasse.

But there is a fourth, perhaps even more radical, objection to the modal approach to norms, namely this. If a *proposition* were forbidden it would not occur in the moral or legal code in question: it might occur only in an *Index* of prohibited propositions. Only human *actions*, or those performed by animals or machines under human control, can be prohibited, obligatory, or permitted. In short, it makes sense to apply a deontic operator to human actions, not to propositions. And it makes

even better sense to apply it to ordered triples of the form ⟨agent, action, code⟩. Example: "All and only able-bodied adults have the right to work according to the UN charter of human rights".

We have moved from imperatives to propositions, and from permissions to rights; likewise we shall move from obligations to duties. The first move is purely formal, yet it has momentous logical and methodological consequences: it spares us deontic logic and it turns ethics from a set of dogmas into a system of testable propositions, the way Ingenieros (1917) wanted. The second move, from permissions to (moral) rights, and the third, from obligations to (moral) duties, weaken the traditional bonds between ethics on the one hand and theology and the law on the other. At the same time they reinforce the bond between moral norms and moral values, hence the difference between morals and mores. (A despot may have deprived me from exercising the right to do X, but if this right is moral I will be motivated to fight for it, and others will support my cause.)

The propositionalization of imperatives has been independently proposed by a few authors, on different grounds and in different ways (Miró-Quesada 1951, 1972, Leonard 1959, Bunge 1973). The particular translation we advocate involves the explicit introduction of values, rights, or duties. For example, we propositionalize the imperative 'Enjoy life and help live' as "It is right to enjoy life and help live". Table 9.1 exhibits a dictionary for translating imperatives into declaratives.

(Warning: Do not give in to the temptation of formalizing prohibitions as $D\bar{x}$ and exemptions as $R\bar{x}$, where '$\bar{x}$' would stand for a non-action, such as not-kicking, because there are no negative facts. This is just a reminder that ethics is not to be divorced from ontology.)

The propositionalization of norms allows us to investigate the logical

TABLE 9.1. Translation of permissions, obligations, prohibitions and exemptions in terms of rights and duties.

Type	Imperative form	Declarative form	Symbol
Permission	You may do x.	You have the right to do x.	Rx
Obligation	Do x!	You have the duty to do x.	Dx
Prohibition	Don't do x!	You have no right to do x.	$\neg Rx$
Exemption	You are not obliged to do x.	You have no duty to do x.	$\neg Dx$

relations among them. For example, in order to help someone live one must be alive to begin with; and if one is alive it is because, no matter how hard one's life may be, one does enjoy parts of it. In short, enjoying life, however minimally, is a necessary condition for helping others live. In symbols, $H \Rightarrow E$, i.e. the norm "It is right to help live" implies the norm "It is right to enjoy life". Another example: We take it that the optimization of welfare and the maximization of justice imply one another, i.e. $J \Leftrightarrow W$. Indeed, a person is not dealt with justly unless he is allowed to enjoy some well-being, and in turn he cannot be wholly well unless he is treated justly.

The ability to establish logical relations among norms, via their corresponding propositions, makes it possible to analyze normative systems, such as moral and legal codes, with the help of ordinary logic. A *normative system* is a set of norms, descriptive propositions, and definitions, that (*a*) shares some referents (e.g. human beings or actions of certain types); (*b*) can be disjoined, conjoined, instantiated and generalized to yield further norms in the system, (*c*) contains (potentially) all of the logical consequences of any one or more norms in the system, and (*d*) can be enriched, without contradiction, with further non-normative formulas, in particular data and natural or social laws — i.e. it is an incomplete system. (For an alternative definition see Alchourrón & Bulygin 1971.)

A normative system is structurally (syntactically) and semantically similar to a scientific theory, except that its principles are prescriptive and (more or less efficient) in addition to being descriptive (of ideal types) and (more or less) true. The systems of the two types are also epistemologically similar in that, in order to be applied to a problem or case, the system must be enriched with empirical data and subsidiary assumptions concerning the circumstances of the case or problem. For example, in order to ascertain whether a certain individual has the duty to support his parents, we must find out whether or not he has or could obtain a gainful occupation, and whether his parents are actually destitute. More on this in Sects. 2.3 and 2.4.

(Ideally, the union of a normative system N, a set H of subsidiary hypotheses, and another set D of empirical data, entails the set S of solutions to the problems that motivated the construction of the system N. In short, $N \cup H \cup D \vdash S$. When this proves not to be the case, N, H, D, or all three are either incomplete, wrong, or both — and it is no easy matter to find out which set of premises is at fault. In short, from

an instrumental or pragmatic viewpoint, a normative system, be it a technical operating manual, a legal code, or a moral one, is a device for cranking out solutions to practical problems with the help of subsidiary hypotheses and empirical data.)

Legal and moral philosophers are often under the illusion that there can be complete and even final normative systems, i.e. systems that can help solve all deontic problems of a kind. This belief is illusory because normative systems are designed to cope with human actions, and these as well as our knowledge of them vary in kind in the course of time. For example, new criminal methods, such as computer fraud, keep appearing; some practices are criminalized whereas others are decriminalized; and psychology and the social sciences continue to learn about human behavior. What we can reasonably hope for is not completeness but comprehensiveness, the possibility of closing gaps without altering the frame or constitutional principles, and substantial reforms once in a while to cope with radically new social structures and individual aspirations.

1.5 *Moral Reasoning*

Emotivists and intuitionists claim that ethics has little if anything to do with logic. At the other extreme some utilitarians claim to have invented calculi for making correct moral decisions, and deontic logicians maintain that they hold the key to valid moral argument. For our part we believe to have shown in the preceding section that deontic logic is useless, and in Ch. 3, Sect. 3.4 that there is no universal value calculus, whence there can be no universal moral calculus either.

However, the failure of these worthy programs does not entail that we must proceed either irrationally or empirically in moral matters. These are too important to be taken lightly. In moral philosophy, just as in theoretical physics, chemistry, biology, psychology, or sociology, we solve problems by reasoning from a set of premises. Any such set of premises contains general statements (laws or rules), subsidiary hypotheses, and empirical data concerning the specifics of the particular case in hand. Valid proof in ethics does not differ from valid proof elsewhere. In order to prove anything we must start by assuming something else, if only for the sake of argument. In particular we must assume first principles or logical consequences thereof. Such principles will of course differ from one ethical doctrine to the next. Hence, whereas in some contexts (theories) we may prove certain ethical

statements, in others we may not: here as elsewhere provability is contextual, i.e. dependent on the assumptions. For example, we can prove that there is a basic human right to work, from the right to life postulate and the general statements that people must eat in order to stay alive, and that food is a product of work (honest or otherwise).

In ethics, like anywhere else, laws (or norms) are of two kinds: basic (or postulates) and derived (or theorems). As in science, in moral philosophy laws (or norms and metanorms) are either universal or particular: either they refer to everyone or only to people in a certain category. By definition, the most basic moral laws, i.e. principles, are universal. For example, "We should make allowances (compensate) for any initial disadvantage or handicap" is a universal law. On the other hand "The blind should be offered assistance in the street" is a particular norm.

Another important distinction is that between unconditional (or categorical) and conditional (or hypothetical) principles. Our maximal moral principle, "It is right to enjoy life and help live", is the only categorical or unconditional one in our system. It suffers no *ifs* or *buts* and offers no reasons or causes: it is the yardstick or standard we use to evaluate morally every action and every other norm. This is because in a humanistic perspective like ours one lives only once and for life's sake — one's own and others's, not for some ulterior motive such as a happy afterlife or the greater glory of God, the nation, the church, or the party.

Two scientific analogs of our categorical principle are a physical standard, such as the standard length unit, and the hypothesis "All electrons are electrically charged". The former serves to measure or calculate, in the last analysis, any length value. As for the hypothesis about electrons, nobody attempts to explain it. Rather, it is so basic that it explains other facts, e.g. that electrons are surrounded by electromagnetic fields and that they interact with other electrically charged entities. Likewise our basic moral norm validates or justifies basic rights, such as the rights to security and work, and basic duties, such as those to protect the helpless and do our jobs the best we can.

Just as in other fields of inquiry, what is a postulate in one system may become a theorem in another. We may derive some norms either directly or via value judgments. In the first paragraph of this section we derived the right to work from three premises. To see how moral laws

or norms can be obtained from other general statements together with value judgments, consider the following intuitive argument.

> If A (is the case, is done), then B (results).
> Now, the result B is good (or right).
> Therefore, A is good (or right).

This is not a logical but, as we shall say, an axiological inference pattern. It is consequentialist and, as it stands, utilitarian, for ignoring the possible side effects of both A and B. We account for these side effects by replacing "B is good (or right)" with "B is good (or right) and, on balance, better (or more right) than A".

Even after having propositionalized all imperatives, ordinary logic is not sufficient to account for moral and ethical reasonings. In fact it must be enriched with *axiological inference rules*, the basic ones of which are as follows (modified from Bunge 1973).

Modus volens	
Law	If A (is the case, or is done), then B (results).
Value judgment	B is good (or right) and, on balance, better (or more right) than A.
Norm	:: A is good (or right) [i.e. A ought to be (the case, or done)].
Modus nolens	or
Law	If A (is the case, or is done), then B (results).
Value judgment	B is bad (or wrong).
Norm	:: A is bad (or wrong) [i.e. A ought to be avoided or refrained from].

Note that, whereas the modus nolens is analogous to the modus tollens of elementary logic, the modus volens is analogous to a common logical fallacy, not to the modus ponens. Moreover, if $A \Rightarrow B$ and A is good, but B is not evaluated, no course of action can be recommended.

We submit that this approach to the construction of derivative norms is interesting for several reasons. Firstly, it breaks the much-touted fact-value and is-ought barriers. In fact, it combines laws, in particular scientific laws, with value judgements, to produce norms. Secondly, it validates uncounted inferences that we make in everyday life but are

not covered by ordinary logic. Thirdly, it strengthens the bond between ethics and axiology. Fourthly, it makes no use of deontic logic. Rather on the contrary, instead of taking all norms for granted as objects of analysis, it invites us to examine their scientific and axiological roots if any, thus favoring a critical approach to morals and ethics. (For the "practical syllogism" approach to the problem see von Wright 1971 and Tuomela 1977, 1984.)

The role of fiction is just as important in ethical reasoning as it is in the arts, technology, or science. And, just as elsewhere, it must be kept under tight control. In particular, we must distinguish between fictitious situations and fictitious entities. Fictitious *situations* may serve heuristic or didactic purposes. For example, we may ask what would happen if everyone were to adopt the immoral mores of the Wild West, or if nobody cared about environmental protection.

On the other hand fictitious *entities*, such as "natural man", "economic man", the "ideal observer", and the "veil of ignorance", do not seem to serve any useful purpose. For example, the so-called ideal observer (or impartial arbitrator) "theory" states that a morally right action is one that *would* be approved of by an omniscient, dispassionate and disinterested person, i.e. a benevolent semigod. Since no such being exists, the proposed definition is useless. Moreover, if an ideal observer did exist, he would lack moral feelings, so that he would be as little justified to judge moral conduct as a bachelor is to advise on marital problems. Rawls's veil of ignorance, allegedly a device for hitting on a just and rational distribution of goods, is equally useless. No such distribution can be designed unless we know something about the basic needs and legitimate wants of the people concerned. As the Stoics emphasized, it takes knowledge to practice virtue.

Parfit (1984) has argued that in moral matters we must focus on what *happens* to people not on *who* they are, whence the concept of a person would be dispensable in ethics. Although it is true that moral principles must be suprapersonal or universal, it is plain that they are about persons, so that morals without persons would be as ghostly as knowledge without knowing subjects. When formulating *general* moral principles we must not try to favor or harm particular individuals. But when formulating *special* moral norms we must take special kinds of persons into consideration, for otherwise there would be no such special norms.

Besides, when *applying* moral principles, whether general or special, a knowledge of personal circumstances does matter. It matters so much that we are forced to employ arguments *ad hominem*, which are intolerable in the sciences. Thus we are justified in being merciful with a destitute and ignorant sinner, and merciless with a wealthy and educated one. Certainly the seriousness of a crime is proportional to the size of the damage, but blame should be inversely proportional to the ability of the offender to lead a clean life. Likewise the praise that a good action deserves is proportional to the size of its outcome and inversely proportional to the power of its actor. It is easy to behave philanthropically when one is well-heeled, hard when barefooted.

Finally, let us remember that logic provides structure not substance. Hence the moral philosopher who is more interested in the former than in the latter may lose sight of moral and ethical principles. Thus, he may examine the arguments used to condemn torture and, finding them logically wanting, he may conclude that torture is justifiable. Unless we care for morals, our metaethics may be an empty shell or worse.

1.6 *Summary*

Ethics may be cultivated as a branch of science or as a philosophical discipline. In the former case the student focuses on the moral norms prevailing in certain social groups, in the latter he pays special attention to the universal or cross-cultural moral norms. If scientific, ethics makes use of the scientific method; if philosophical, it is eminently conceptual. However, if sound, scientific ethics makes use of some of the results of philosophical ethics, and the latter utilizes some of the findings of scientific ethics. Therefore it makes sense to take the union of scientific and philosophical ethics and call it *ethics* without further ado.

In our system ethics is based on both science and value theory. The reason is that ethics deals with right actions, which are defined in terms of actions that increase the well-being of someone, a change that ought to be evaluated scientifically.

Every moral code is constrained not only by nature and society but also by a general frame or moral constitution, as well as by a set of metanorms. The moral constitution of our ethical theory is humanistic rather than theistic, and systemic rather than either individualist or collectivist. As for metanorms, they are conditions on moral norms. One of them is the universality condition, which must be demanded of

the basic moral principles. Given the variety of human biological and social groups, a realistic ethics will admit the need for a variety of moral codes. But, since all such codes concern human beings, they are bound to have a non-empty intersection.

Moral codes are normative systems, i.e. systems composed of interrelated norms. In the old times norms were construed as orders — 'do this', 'don't do that'. The general decline of religion and of authority based on brute force has made us more critical. We prefer sentences to imperatives. Fortunately every imperative can be translated into a sentence — though of course not conversely. For example, 'Do x!' translates into 'You have the duty to do x', and 'Don't do x' into 'You have no right to do x'. Unlike orders, sentences about rights and duties can be argued about, and some of them can even be tested. The exception is the maximal norm "Enjoy life and help live", which — when suitably propositionalized in terms of rights and duties — functions as *ultima ratio*.

Reasoning is no less important in ethics than in any other field of knowledge. By and large it fits standard deductive logic. However, any consequentialist ethical system, like ours, will require, in addition, certain patterns of axiological inference leading from the conjunction of laws and value judgments to (derivative) normative statements. We have singled out two of them, which we have called *modus volens* and *modus nolens*. Such (nondeductive) derivation of norms from laws and values suggests that the famous is-ought gap is not an abyss after all. But this is a matter for the next section.

2. ETHICS AND REALITY

2.1 *The Is-Ought Gap*

Most philosophers accept Hume's thesis that ought-statements cannot be logically derived from is-statements: that there is an unbridgeable chasm between moral norms and factual propositions, hence between ethics and science. However, a few philosophers have challenged Hume on this point. Let us take a quick look at some of their arguments.

Black (1964) claimed to have dismantled what he called 'Hume's guillotine' by means of such alleged counterexamples as this:

> You want to achieve B.
> Doing A is the one and only way to achieve B.
> Therefore, you should do A.

But it is evident that the conclusion does not follow *logically* from the premises, for these fail to contain the "should" (or "ought") concept. The above "practical syllogism" is an instance of what we have called an axiological inference pattern, namely the modus volens (Sect. 1.5). This rule of inference is reasonable, even necessary in ethics and technology, but it does not fit deductive logic.

Mackie (1977) held the following to be a valid inference: "Doing *X* is wrong, therefore you ought not to do *X*". This looks like a valid inference only because we tacitly assume that one ought not to do anything wrong; but as it stands it is not valid. If the missing premise is explicitly added, we do obtain a valid inference, namely

> You ought not to do anything wrong.
> Doing X is wrong.
> Therefore, you ought not to do X.

(If in doubt about the validity of this argument, translate the major premise into "You have no right to do anything wrong", and the conclusion into "You have no right to do *X*".)

MacIntyre (1984) maintains that the following example refutes Hume. From the factual premises that this watch is inaccurate, irregular, and too heavy, the value judgment follows that this is a bad watch. Actually nothing of the sort follows: MacIntyre's is an enthymeme not a deductive argument. In order for the conclusion to follow we must add either an explicit definition of "bad watch" or the conditional "If a watch is inaccurate, irregular, or too heavy, it is a bad watch". In conclusion, *Hume ab aevo vindicatus.*

We admit the is-ought gap but deny that it is a chasm, and submit that we cross it daily both conceptually and practically. We do the former when constructing "practical syllogisms" such as the *modus volens* and the *modus nolens* introduced in Sect. 1.5. In more complex cases we may need not only value judgments but also higher level moral norms in order to derive the desired lower level moral norm. For example, to derive the norm "Protect the environment", or better "If you value life protect the environment", we need to know not only that normal life requires a clean enviornment: we also need the moral norm "Enjoy life and help live". Another example: Whenever we evaluate possible courses of action, we pick the one that seems best, and proceed to implement it, on the strength of the moral principle *We ought always to do the best* (or *We have the duty to do our best*). In short, we arrive at norms either from value judgments conjoined with

factual statements, or from such premises enriched with higher level norms.

As for the practical bridging of the is-ought gap, it consists in acting in order to meet needs or wants: in transforming a deficient *is* (current state of affairs) into a satisfying *ought* (future state of some system of which the agent is a part). This transition can be described in cybernetic terms within the state space schema adopted in Vol. 3, Ch. 3, and Vol. 4, Ch. 1. In fact we may proceed as follows.

Saying that agent X *ought* to do G amounts to saying that G is a *goal state* (or set of states) of X, or of some system Y under the control of X, and that G is more valuable to X than the present state of X or of Y, as the case may be. The goal state G is specified and achieved either automatically (as in biological control) or deliberately (as when reaching for a banana or turning the knob of a thermostat). In either case the intensity of the drive to attain G is an increasing function of the discrepancy between G and the current value $F(t)$ of the state function of the system under control. When the organism or the system it controls is equipped with a feedback mechanism, it is capable — barring strong unforeseen perturbations — of attaining G by successive approximations (e.g. oscillations of decreasing amplitude). In normal cases the goal coincides with the objectively good or right, so that the transition from the current state to the goal state improves the well-being of the organism. In abnormal cases (e.g. self-mutilation and trading bread for guns) the system goes to a worse state. In either case, whether G is good (or right) or bad (or wrong), every time the system attains G, the *ought* becomes *is*, i.e. Hume's gap is being closed. See Figure 9.5.

2.2 *Moral Truth*

Most philosophers deny that there can be moral truths because they conceive of moral principles as orders expressed by imperatives, and obviously these can be relevant or irrelevant, efficient or inefficient, but not false or true. This objection is invalid if it be admitted that imperatives are translatable into declaratives, as proposed in Sect. 1.4. For example, "Killing is wrong" is true in any ethics asserting the right to life, false in any alternative ethics.

The truth or falsity of a moral principle can best be investigated when spelled out in terms of rights or duties, of virtues or sins, or of good or bad consequences. For example, "Help thy neighbor" can be

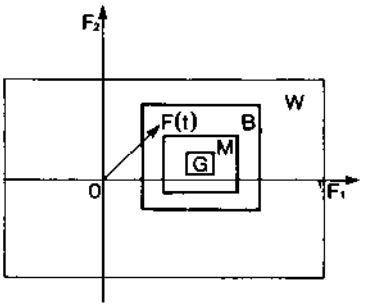


Fig. 9.5. Closing Hume's gap in practice. The system is in state $F(t) = \langle F_1(t), F_2(t) \rangle$ at time t, and it tends to go into one of the good states lying within the rectangle G. The states outside G are mediocre (M), bad (B), or wretched (W). The system does not work at all as such if in a wretched state. The transition from a B or an M state to a G state closes the is-ought gap.

propositionalized as "It is right to help one's neighbor". And the truth of this precept becomes obvious when spelled ou as "If you care for your neighbor, or wish to be on good terms with him, or be able to count on him in an emergency, or be at peace with your conscience, help him". Likewise "Thrift is virtuous and waste sinful" is true in a world of increasing scarcity, even though it will not meet with the approval of short-sighted economists and statesmen.

As with moral truth, so with falsity. For example, "What is good for the economy is good for the individual" is false, because the economy may be stimulated in the short run by wasteful consumption, which in the long run is bad for humankind. (See Veblen 1899 p. 73.) Likewise "What is good for the state (or GM or the church or the party) is good for all" is false whenever the state (or corporation or church or party) hardly cares for the individual well-being of everyone.

Since there are moral truths there can also be moral lies, i.e. utterances that deliberately convey moral falsities. For example, the claim that there are inferior races is not only a scientific falsity: it is also a moral lie used to justify the exploitation or oppression of certain ethnic groups. And, whereas the utterance of a factual falsity may be merely a mistake, that of a moral lie is almost always sinful. The exception is of course the white or merciful lie.

The thesis that there are moral truths and falsities presupposes that

there are *moral facts*. (In turn, this presupposes that moral truth is not formal, and that factual truth is correspondence with fact.) The thesis that there are moral facts is denied by most philosophers. (Harman 1977 and Nino 1985 are exceptions.) But in Sect. 1.1 we argued that there *are* facts of this kind, namely all those involving rights or duties. For example, dumping toxic waste in a lake is a moral (or rather immoral) fact because it violates the right of others to enjoy a clean environment, (Consequently the proposition "Dumping toxic waste in a lake is wrong" is a moral truth.) Seeking a cease-fire in a war, and signing a non-aggression pact, are moral facts as well for helping exercise the right to life. Consequently the proposition "Peace-making is right" is a moral truth — as is "Warmongering is wrong".

However, there is a difference between moral truths and physical or biological truths, namely that the former are *contextual* whereas the latter are not. Indeed, since moral truths concern rights and duties, and these are relative to the moral code, the former are contextual as well. In this regard, and only in this one, moral truths are akin to mathematical truths, every one of which holds within a given system (theory) but may be false or even meaningless in alternative systems. But even this context-dependence is limited, for all viable moral codes share some principles.

The natural law theorist claims of course that moral rights and duties are absolute, i.e. context-free. But since, as a matter of fact, certain rights and duties fail to be enshrined in a number of moral codes, he cannot claim that the corresponding propositions are true. If he nevertheless does make this claim, then he cannot hold such truths to correspond to facts: he must hold them to be formal like mathematical theorems, or he must adopt a non-realist concept of truth. Given these difficulties he is likely to retreat to the traditional view that moral norms can be neither true nor false. But then he cuts the root of his doctrine to nature and natural science, so he has no right to call himself a *natural* theorist. The aim of this discussion has been to support our thesis in Ch. 8, Sect. 1.2, that ethics cannot be divorced from semantics and epistemology.

In conclusion, there are moral truths and falsities because there are moral facts. Consequently moral principles are testable. More on this in Sect. 2.4.

2.3 *Applying Ethics*

Does ethics make a difference to real life, i.e. are ethical doctrines ever applied with any success? At first sight the empirical evidence is equivocal. For one thing some experiments in social psychology seem to show that, in similar circumstances, people behave similarly regardless of their "ethical ideology" (Forsyth & Berger 1982). The historical record would seem to support this hypothesis. For example, we all know that Christian ethics has inspired as many crimes as selfless deeds, and that utilitarianism has inspired progressive social reforms as well as egoistic behavior.

Furthermore, much as philosophers would like to believe that Spinoza inspired Locke, who in turn inspired the French Enlightenment, which begat the French Revolution, which enshrined the noble devise *Liberté, égalité, fraternité*, historians know better. They know that, at best, ethical ideas *facilitate* social movements. (Incidentally, the thesis that Protestant ethics begat capitalism, holds no water. In fact (*a*) capitalism had existed on a small scale before modern times, and (*b*) modern capitalism was born more or less simultaneously in Catholic as well as in Protestant countries. What is true is that Protestantism *favored* capitalism more than Catholicism did. Weber [1904—1905] wavered between the two theses.)

Most people go by certain moral norms, such as those of equity and reciprocity, that are not the prerogative of any single moral code or ethical doctrine. (For example, the Golden Rule occurs in most moral codes, and most ethical theories concur with the thesis that morality has a social function.) In other words, it is not that ethics makes no difference, but rather that there is a certain minimal morality, and a certain minimal ethical doctrine, that are universal or nearly so. Whenever we confront complex moral issues we make explicit use of some such norms. And whenever we do so we face the methodological problem of solving individual cases in the light of general principles.

According to a popular view, inherent in legal positivism, the application of a rule to a particular case is straightforward: the rule either fits the case or it does not. People with real life experience, particularly in moral, legal or political matters, know better: they know that the counselor, judge or politician must "interpret" the rule, and that

such an "interpretation" is not really a semantic affair but that it consists in the addition of data and subsidiary assumptions. Codes and theories, whether moral, legal, scientific or technological, are only *sketches* that must be supplemented with particulars if they are to be applied to individual cases. Such particulars concern not only the case under examination but also precedents about similar cases in the past. Such precedents are among the data to be used to form an opinion or reach a decision on the case in hand. (For the logic of such decision see Sect. 1.4.) However, in moral, legal and political matters decisions do not follow logically from principles, hypotheses and data. For better or for worse, normative reasonings are always contaminated or purified by feeling and bias.

Furthermore, no moral or legal principle can be applied singly without harm, for every such norm focuses on a limited area of human action, whence it leaves other areas in the dark. If we seek moral or legal justice, every time we are called upon to apply a moral or legal principle we must bring to bear its companions as well. In short, we must proceed *systemically* — though not holistically. (See Vol. 4.) When doing so we realize that no two moral or legal problems are identical. Thus if person A, a college graduate with a good job, and B, a high-school drop-out without a job, commit the same (moral or legal) offense, it would be unfair to give them the same sentence. A deserves a harsher punishment than B, for A ought to know better and he can meet his basic needs and legitimate aspirations without breaking the law, whereas B cannot. (In real life things often happen the other way round: A can hire a better advocate than B, so he is likely to get off with a lighter sentence, particularly if A is a member of the dominant ethnic group and B is not.)

An extremely demanding and rigorous moral code or ethical doctrine is unlikely to find lasting application in the modern world. To be viable a moral code or an ethical theory must be (*a*) *realistic*, i.e. account for the basic needs and legitimate aspirations of people; (*b*) *socially useful*, i.e. inspire prosocial behavior and discourage antisocial conduct; (*c*) *flexible*, i.e. adaptable to new circumstances; (*d*) *compatible* with the best available knowledge about human nature and human society, and (*e*) *equitable*, i.e. help to compensate for inequalities and erradicate privilege. In short, the truer and the more right, the better its chances of being applied with success rather than remaining buried in books.

2.4 *Testing Ethics*

In Sect. 1.1 we distinguished scientific from philosophical ethics. The hypotheses and theories in the former are, by definition of 'scientific', just as testable as those in any other scientific disciplines. The question is whether philosophical ethics is testable and, if so, how. For example, how do we go about finding out whether moral nihilism or egoism, conventionalism or emotivism, is true (to fact) and efficient (in guiding action)? Emotivists, intuitionists, natural law theorists, deontologists, conventionalists, moral positivists and other ethical dogmatists do not face the test problem. On the other hand those of us who believe that there are moral facts and moral truths, that some moral norms can become obsolete or even obnoxious, and that moral principles should help govern efficient action, do face the test problem.

In our view there is no major problem with testing ethical *theories*, i.e. hypothetico-deductive systems about the nature, root and function of moral norms: such theories are testable the same way as psychological or sociological theories, namely by their consistency with both facts and other theories. (See Vol. 6, Ch. 12, Sect. 3 for the need for such a dual test.) For example, we rejected ethical emotivism and intuitionism for failing to account for the rational and empirical inputs to moral deliberation; and we rejected utilitarianism for overlooking moral sentiments and for using subjective values and probabilities. (Recall Ch. 7.) From an ethical theory we demand (*a*) internal logical consistency; (*b*) external consistency, i.e. compatibility with the bulk of relevant scientific knowledge; (*d*) ability to account for viable moral codes; (*d*) helpfulness in suggesting needed moral reforms, and (*e*) usefulness in analyzing moral concepts and principles, hence (indirectly) in settling moral disputes. The testing of ethical theories is thus similar to that of theories about grammars — for which see Vol. 7, Part II, Ch. 4, Sect. 3.2.

What does pose a serious methodological problem is the test of any moral *norm*, i.e. the justification of the claims that the norm is (*a*) a moral *truth* (or falsity) for fitting (or failing to fit) certain moral facts, and (*b*) practically *efficient* (or inefficient) for promoting good (or bad) moral conduct. In our view all moral norms except the highest of them all — "Enjoy life and help live" — are testable provided they are stated in clear terms. They are testable in three different but mutually complementary ways: (*a*) by checking their consistency with higher moral or

ethical principles; (*b*) by checking their consistency with the relevant scientific, technological or ordinary knowledge pieces of information, and (*c*) by ascertaining whether they affectively contribute to maintaining or enhancing individual or social welfare. Let us examine these three types of test.

Moral norms, just like scientific hypotheses, must be *consistent with the highest accepted principles*, in this case the first moral and metaethical principles in the system concerned. In the case of our system, the highest principle to which every other moral rule or meta-rule must conform is of course "Enjoy life and help live". Any rule that facilitates the implementation of this principle is morally right, and any rule that hinders it is morally wrong. Example of the former: "Know thyself and thy neighbor". Example of the latter: Any rule that enforces discrimination on any grounds other than ability.

Einstein (1950 p. vii) showed clearly how a (derivative) moral norm can be validated by "tracing it back" to basic moral precepts. The injunction not to lie can be justified as follows. "Lying destroys confidence in the statements of other people. Without such confidence, social cooperation is made impossible or at least difficult. Such cooperation, however, is essential in order to make human life possible and tolerable. This means that the rule 'Thou shalt not lie' has been traced back to the demands: 'Human life shall be preserved', and 'Pain and sorrow shall be lessened as much as possible'". In other words, we are returned to our supreme maxim "Enjoy life and help live". (Interestingly enough the great theologian Suárez (1612) advocated the same method. In fact he held that the validity of a norm derives ultimately from the "eternal laws" and the "natural laws": *Lex aeterna* implies *lex naturalis*, which in turn implies *lex positiva*.)

The second test is that of *consistency with the best available knowledge*. Thus a moral norm that were to ignore moral sentiments, or were at variance with the well known sociological finding that moral rules are human creations that affect (positively or negatively) human relations, could be discarded out of hand. For example, a norm that commands making human sacrifices to a divinity is not only cruel but also incompatible with anthropology and history, both of which show that divinities are human inventions. Likewise, social science teaches us that certain food and sexual taboos, ordinarily thought to be moral norms, are nothing but customs — albeit often customs with a social or religious rationale. (See e.g. Harris 1979.)

The third and last test to which any moral norm ought to be submitted is that of *efficiency*. It consists in checking whether the norm in question helps realize the underlying basic values. In this regard moral norms are similar to the science-based rules of modern technology: both are based on laws and they are tested by their efficiency in helping bring about desirable states of affair. And, like the efficiency of technological rules, that of moral norms is best assessed by scientists and sociotechnologists engaged in studying people. Moral codes are right if they "work", wrong if they don't. But in order to work they must be viable to begin with, and such viability calls for realism (Sect. 2.4).

Even if a moral norm passes all three tests, it must be regarded as imperfect. Four centuries of scientific and technological experience, not to mention philosophical criticism and social experience, should prevent anyone from pursuing infallibilist mirages, in particular that of an *ethica perennis*. We all should know by now that no moral code and no ethical theory can guarantee anything, even though some codes and some theories can be more helpful than others. In short, we should be ethical *fallibilists*, i.e. ready to admit moral or ethical error, rather than being dogmatists. (For the dogmatic feature of moral intuitionism see Ch. 7, Sect. 1.5.)

But fallibilism is destructive unless accompanied by *meliorism*. We may and should hope for moral and ethical progress through both social reform and theoretical work. Ethical meliorism is justifiable on the following grounds. Firstly, morals coevolve with society, and ethics with the rest of philosophy as well as with social science and social technology. Secondly, if we want to we can spot and correct moral deviations and ethical mistakes, though it may take some intellectual or even civic courage to do so.

Take for example the slogan *Freedom or death*, embraced by countless political leaders since ancient times. At first blush every freedom lover should adopt it. But on second thoughts it becomes obvious that the precept is optional, not binding on everyone. Indeed (*a*) even the life of a slave may be worth living; (*b*) sometimes the bondman has a real possibility of gaining freedom by peaceful means; (*c*) nobody has the right to bully others into a fight to the death; and (*d*) the price of any war without quarter can be staggering, not only in terms of casualties but also because it makes it hard for the defeated, whatever the outcome, to retain or to gain any freedoms. There are only two cases where fighting to the death or committing suicide is

preferable to servitude: when faced with a merciless enemy and when the price of freedom is betrayal. In all other cases we must think twice before resorting to violence in order to conquer freedom, and this for prudential as well as for moral reasons. (Recall Ch. 8, Sect. 2.5.) In any event, the point was to suggest that once in a while we must question our most cherished moral beliefs, for fresh information or new thinking may disprove them.

In conclusion, "Ethical axioms are found and tested not very differently from the axioms of science" (Einstein 1950 p. viii). Both are ultimately vindicated or invalidated by experience. In the cases of moral norms and ethical theories the empirical data concern human welfare. Hence biological and social indicators — such as life expectancy and infant mortality, protein intake and average number of school years — are more relevant to the testing of moral norms and ethical theories than pondering over interpersonal relations or exceptional moral predicaments (Waddington 1961 p. 18).

2.5 *Summary*

There is a gap between that there is and what there ought to be, but this gap can be bridged. We cross it daily both conceptually and practically. We do this by thinking that we ought always to do what is best and by attempting to do it. Meeting ends and wants, i.e. transforming what ought to be into actuality, is what life is all about.

Since any imperative can be translated into a declarative, moral norms take the form of propositions, in particular conditionals, whence they are true or false to some extent. For example, "Keep your promises" translates into "It is right to keep one's promises". This is a true proposition, for breaking promises causes harm, hence it is wrong. Moral truths match moral facts. Moral falsities, in particular moral lies, distort reality and may put welfare at risk.

Moral norms regulate some of our actions; and occasionally we design policies and plans in the light of ethical doctrines. The application of either is at least as complex as the application of scientific hypotheses and theories. Far from being straightforward, it involves the gathering of data concerning circumstances and precedents. Moreover, moral rules ought never to be applied singly because every moral problem is complex. Here as elsewhere systemic thinking is the ticket.

Moral norms and ethical theories are to be tested in two ways: for truth and for efficiency. Ethical theories are tested for truth much in the same way scientific theories are; their test is particularly similar to that

of the test of theories about grammars. As for moral norms, the maximal one is not directly testable. But its consequences are testable and it is a yardstick for evaluating all of the other norms. The latter are tested in three ways: by checking their consistency with the highest level norms, by seeing whether they harmonize with the best relevant knowledge, and by observing in practice whether or not they contribute to overall welfare.

But even if a moral norm passes all three tests it must be regarded as provisional, either because it is based on defective knowledge or because it may become irrelevant. That is, we must espouse ethical fallibilism, though not to the point of radical skepticism. Here as elsewhere we are justified in holding on to a bunch of firm principles, such as that of mutual help, as well as in believing in the possibility of improvement. In short, we are meliorists as well as fallibilists.

We have come to the end of Part III on ethics. The results obtained so far in the book will be employed to study human action, particularly of the social kind, in the next part.

PART IV

ACTION THEORY

CHAPTER 10

ACTION

So far we have studied the good and the right. In the following we shall inquire into the sorts of action that we should perform in order to realize our values in a practically efficient and morally right way. That is, we shall sketch an action theory and a social philosophy. These ideas will be applied in the last chapter to discussing the most pressing issue of our time: the survival of our species.

Human action is a subject of study of scientists, particularly sociologists, and philosophers. The former are mainly interested in collective or social action, whereas the latter focus their attention on individual action. Typically, social scientists attempt to explain social action not only in terms of individual intentions but also in terms of social forces, whereas philosophers are only interested in intentions and decisions. Most social scientists do not care to elucidate the key concepts they employ in describing or explaining action, whereas most philosophers are exclusively interested in such elucidation. (For the contrast between the two approaches see Seebass & Tuomela Eds. 1985.)

We submit that there need be no contrast between the scientific and the philosophic approaches to human action and, moreover, that it is convenient to combine the two approaches. In particular, it is possible and desirable to analyze social action into a collection of individual actions (under social constraints) with similar purposes (though perhaps different motivations). But such analysis of social action in individualistic terms must be supplemented with an examination of the social outcomes of concerted individual action. That is, social action does not affect solely the personal lives of the actors involved in it: it may also alter the structure of the society, to the point of creating or destroying entire social groups or institutions. Typically, the philosophical analyses of social action disregard such social changes for ignoring large-scale social movements such as strikes, wars, and the building of business or political empires. If only for this reason, i.e. to shift from trivia to genuine problems, it is healthy for the social philosopher to rub shoulders with social scientists. What holds for action theory holds for social philosophy as well.

The orientation of our action theory and our social philosophy is scientistic rather than aprioristic or speculative. (For an examination of scientism see Vol. 6, Ch. 15, Sect. 2.2.) Consequently we do not regard action theory as an exercise in logic, or social philosophy as a system of dogmas concocted without the help of social science and sociotechnology. In particular, we have no use for modal logic or for the metaphysics of possible worlds. We claim that a realistic theory of action uses the concept of real possibility, which can only be elucidated in terms of objective regularities (laws and rules), constraints, and circumstances. We also claim that, if we are to understand human action and help design it, we must look at the real world rather than imagine possible worlds.

Taking a scientistic approach to human action and social issues does not involve engaging in a value-free, ethically noncommittal, or ideologically neutral speculation. Far from this, our action theory and our social philosophy depend on the value system and the moral norms adopted in previous chapters, and those theories contain ideological theses such as "Integral democracy is the best social order". But we hope that, unlike alternative ideological tenets, ours can be supported by argument and empirical research, and that they serve the interests of humankind rather than those of special groups.

1. INDIVIDUAL ACTION

1.1 *Philosophical Underpinnings*

We start by declaring the philosophical presuppositions of our action theory, in the first place the logical ones. A moment ago we stated that we do not need modal logic, which we regard as a purely formal discipline without applications in science or philosophy. (Vol. 3, Ch. 4, Sect. 1.2.) Nor need we resort to three-valued logic, which has been recommended for allegedly accomodating inaction or abstention as an alternative to approval and disapproval. Ordinary logic suffices to account for this case, as suggested by the following example. "I will join you in doing A if and only if I approve of A. But it so happens that I neither approve nor disapprove of A. Hence I will not join you in doing A." As the reader may easily check, this is merely an instance of the modus tollens for equivalences. Ordinary two-valued logic suffices to handle inaction.

It has also been claimed that action theory needs some theory of contrary to fact conditionals (or counterfactuals). An example of a counterfactual sentence is 'If *A* were to do *B*, then *C* could happen', where it is tacitly being assumed that *A* won't do *B*, perhaps because *A* realizes that the effect *C* is undesirable. There is no doubt that we employ counterfactuals when deliberating about possible courses of action. The question is whether counterfactuals merit a special theory. In our view they do not because every counterfactual may be regarded as a sentence designating either a hypothesis with a false antecedent, or an abbreviated inference with a false premise (Bunge 1973 Ch. 1). Here again ordinary logic is sufficient.

As for the epistemology of action theory, we take sides with realism and against all varieties of anti-realism, in particular subjectivism or relativism, according to which "there is no such thing as the way the world really is". We adopt realism because it is the epistemology inherent in scientific research and in technology (Vol. 6, Ch. 15, Sect. 2.2, and Tuomela 1985). It also underlies any adequate and useful theory of human action. In fact, if there were no objective truths, however partial, we would be unable to use them to plan any efficient courses of action: all our actions would be impulsive. As well, without the notion of objective truth that of factual error would make no sense, and it would play no role in explaining any technical mistakes in the planning of action. Moreover, if all truths were subjective, so would be all evaluations of the extent to which our actions succeed in attaining our goals.

As for the fact that every one of us participates in some social process, rather than being a passive spectator of the social scene, it supports realism rather than subjectivism or relativism. Indeed, if you decide to act upon somebody you presuppose that your prospective patient exists objectively. Furthermore, if you wish your action to be efficient, you had better study the way your prospective patient really is. Many of our failures in dealing with people can be traced back to our tendency to rely on first impressions and prejudices. In short, critical (and in particular scientific) realism is just as crucial in action theory as in science and technology. Anti-realism can only be used as an excuse for inaction: it is nothing but an exercise in academic ingenuity.

We also take sides with the thesis of the basic methodological unity of all the factual sciences, and consequently against the so-called *Verstehen* (or empathic understanding) school. The latter claims that

human actions cannot be studied scientifically because some of them are intentional — or, as Weber put it, have a "meaning". This is obvious, but all it proves it that an adequate theory of human action cannot be a branch of physics or chemistry. Physiological psychologists study intentional (or voluntary) acts in the laboratory in the same objective way they study unintentional actions. Moreover, the mere existence of sciences that are social as well as natural — such as geography, demography, social psychology, anthropology, and bioeconomics — refutes the historicist and hermeneutic thesis that the social sciences cannot mix with the natural ones. In short, the historicist (or idealist) philosophy of social science has been left behind by scientific research and therefore it cannot be a sound basis for a theory of human action.

As for the ontology inherent in action theory, let us only make a few brief remarks on two questions, those of determinism and materialism. By admitting the possibility of freedom (Ch. 6, Sect. 2.3) we have rejected classical determinism. However, we have not derived the possibility of freedom from the alleged lawlessness of the mental or from the claim that the basic physical laws are probabilistic rather than causal. We have assumed that both the freedom of choice among given alternatives and the original creation of new alternatives are properties of certain plastic regions of highly evolved brains (Vol. 4, Ch. 4, Sect. 5.1). It is a tacit assumption of every science that every property is related lawfully to some other properties, and this holds in particular for the properties of the human brain. If there were no laws, or if we did not know any of them, we would be unable to act in a deliberate or intentional fashion. Thus when doing A in order to get B, we assume tacitly or explicitly (if only for the purpose of trial) that A is likely to bring B about, either always or with some probability. In short, deliberate human action involves both freedom and lawfulness.

Another ontological problem related to action theory is that of the reality and materiality of the external world. In theory almost any ontology is compatible with human action. Whether by acting we construct the world or merely alter it, is immaterial as long as the desired changes are brought about. But in practice metaphysical idealism is only compatible with quietism, because one does not succeed in altering the world by pure thought. It was not by accident that Buddha taught the unreality of the world and preached inaction, whereas Marx was a materialist of sorts and exalted praxis. The social reformer assumes tacitly that the persons and social groups he deals

with exist by themselves, and he endeavors to do something to change them in some way or other. For this reason he must regard metaphysical idealism as impractical or even obstructive: he must assume that the real world is material as well as knowable. (Whether he realizes this is another matter.)

In sum, we seek to sketch an action theory and a social philosophy in harmony with the rest of our philosophical system and, in particular, compatible with our value theory and our ethics, as well as with our materialist ontology and our realist epistemology.

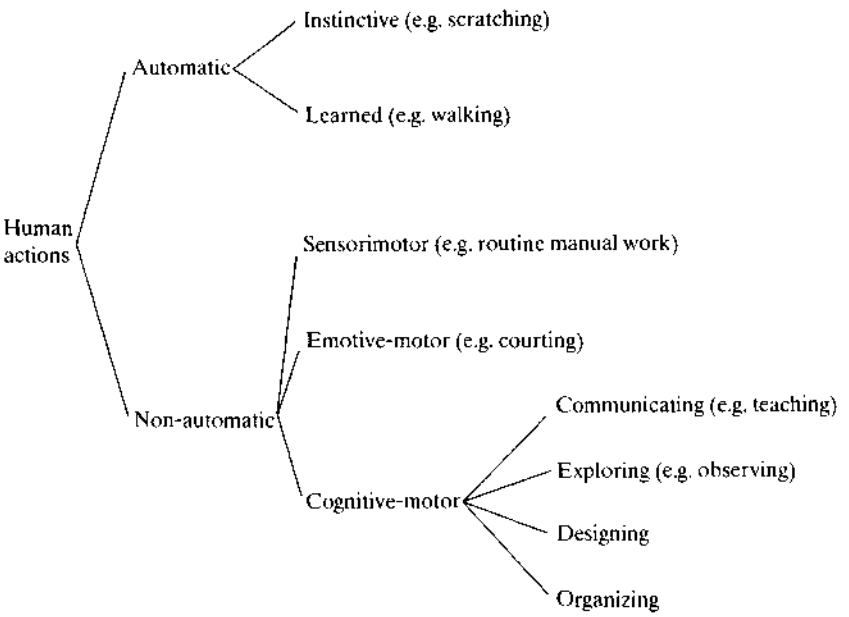
1.2 *Human Action*

All concrete (material) entities are active in some way or other: there are no changeless and totally passive things in the world. Human action is a particular case of action. The action that one thing or its proxy (the agent) exerts upon another thing (the patient) may be defined as the difference that the former makes to the history of the latter. (Recall Vol. 3, Ch. 5, Sect. 4.1.) In human action theory the agent is a human being, or an animal or a machine under his control, and the patient may be any concrete thing, whether human or not, that coexists with the agent at least during part of the period under consideration. There is interaction if the patient reacts upon the agent, as in the cases of work, play, and conversation. And the action is social if both agent and patient are members of the same animal species.

Humans are distinguished from other things not for being doers but for being capable of acting rationally in a morally right or wrong way, i.e. for being able to use knowledge to do good or evil. In short, we are (sometimes) rational moral agents. A nonhuman animal may do another a good turn, but not nearly as rationally, hence effectively, as a human. And an intelligently programmed robot may behave rationally (by proxy) but not with good or evil purposes — except again by proxy — for it is incapable of having intentions of its own. This is not to say that man is the only rational and ethical animal. But, among all the animals known to us, we are certainly the ones capable of acting in the most rational and right way — as well as the only ones capable of putting the highest reason in the service of evil.

The collection of human actions can be partitioned in various ways. We shall make use of the following partition shown overleaf.

Action theory is only concerned with non-automatic human actions. All of them are learned and moreover intentional or goal-directed, even



though their goal may be only barely sketched rather than designed in detail. Unlike a reflex action, an intentional one is preceded by deliberation and decision, both of which include valuation. Consequently an intentional action is one that we can choose *not* to perform, and one for which we must take full individual responsibility.

Intentional actions may be characterized as positive (or constructive) or as negative (or destructive), depending on whether their goal is to produce or maintain, or else to remove or destroy. Thus hiring an employee is a positive action whereas firing him is a negative one. However, this dichotomy is contextual or situational and, since situations are changeable, it is also dynamic: actions that are positive to some people, at some time, may be negative to other people later on. Thus building one more highway may solve an immediate problem for some motorists, but it may have long term negative consequences for everyone. Life requires taking negative as well as positive actions. However, it is desirable to minimize the former if we are to minimize suffering.

Even a positive or constructive human action has some negative or

destructive side, such as waste production and, in general, an increase in the entropy or disorder of the environment. It is therefore advisable to speak of actions that are *mainly*, but never totally, constructive. If we are to live we cannot help increase the environmental entropy or disorder. However, we can avoid wanton destruction, in particular that of highly complex and valuable systems, such as human beings. Since we can and should, we had better state explicitly

NORM 10.1 Do not deliberately increase the overall disorder unless it is for the purpose of increasing the local order in the process of meeting some basic need or legitimate want.

NORM 10.2 Do not destroy anything valuable unless you can replace it with something better without at the same time preventing others from satisfying their basic needs.

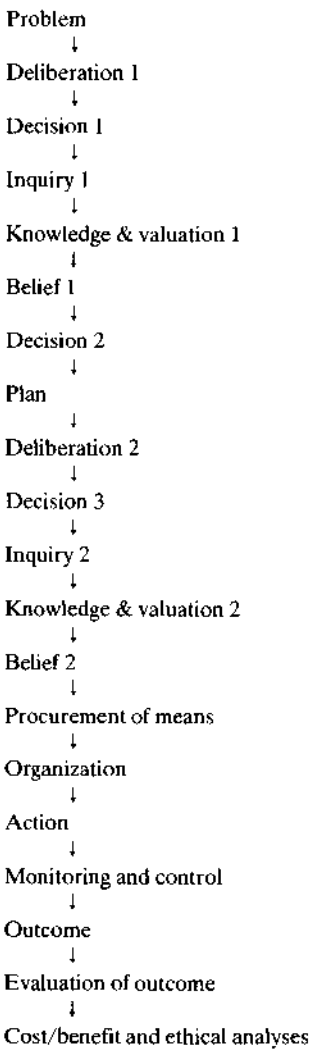
These two norms entail (in an intuitive not in a logical sense)

NORM 10.3 Do not design or manufacture artifacts that (*a*) serve no constructive purpose (i.e. are either purely destructive or useless), or (*b*) require the irreversible destruction of a natural resource, or (*c*) have a built-in obsolescence.

This last norm enjoins us not to perform certain actions. Inaction is not a form of action, yet it may have positive or negative consequences, for it allows nature to take its course, or others to take action. This is why morality and the law blame us not only when we do something evil but also when we fail to take action to prevent harm to life or property. By not taking action the onlooker fails to divert the course of events and thus makes no contribution to the prevention of undesirable events. However, in and by itself inaction, not being a process, lacks causal efficacy. (More on this in Hart & Honoré 1959, and in Bunge 1982 b.)

Any course of rational human action may be represented schematically by the flowchart on the next page.

A person behaves rationally if and only if she makes use of the best knowledge available to her in planning her course of action, and it she is willing to discuss her plans and decisions as well as to revise them in the light of new information. (See Mosterín 1978 pp. 56—57.) Acting on impluse, without deliberation and planning, is irrational. So is planning without the benefit of solid knowledge or without making room for unforeseeable disturbances and risks. The same holds for actions which are not monitored or the outcome of which is not evaluated. Yet both in private life and in the public sphere we often do not bother to evaluate some of the most important actions.



However, rationality is not enough: the moral agent is supposed to behave rightly as well as rationally. And of course there is room for values and morals in nearly every one of the phases of a course of intentional action, from the spotting of the problem — which, if moral, may not even be "seen" by the moral moron — and deliberating what if anything is to be done about it, to choosing the means to solve the

problem, and evaluating the final outcome. Consequently any plan of action may, and ought to be examined from a moral viewpoint as well as from a purely technical one. Technology without morals can be evil, just as morality without technology may be impotent.

Moral philosophers and psychologists are interested in uncovering the possible sources or motivations of human action. It turns out that, whereas some of them are positive or constructive, others are negative or destructive. Basic needs, legitimate interests, love, the sense of duty, and curiosity are among the former; and fear, shame, greed, and hatred among the latter. In a good society the positive motivations would be rewarded and the negative ones discouraged, so that on the whole the former would prevail over the latter. A society that thrives on fear or shame, and promotes greed or hatred, is evil.

Up to a point, the effort put in attaining a goal is the greater, the greater the difference between the value of the goal state and that of the current state of the system that is being acted on. (Physical analog: Ohm's law.) But if the path to the goal proves much longer than foreseen, or the means to attain it do not become available, the agent is justified in reviewing the entire operation. And if the endeavor looks hopeless the rational thing to do is to redesign it *da capo* or even to give it up in time to cut the losses. However, these are practical problems of marginal ethical interest, except of course when they originate in moral problems. The solution to any such practical problem calls for a number of items of specialized knowledge concerning the system of interest. Nevertheless, from such specialized studies a certain number of descriptive and normative principles can be formed. The field of knowledge that seeks to find such generalizations is called *praxiology* and it may be regarded as a branch of general technology and, more particularly, of the general theory of systems. (See Kotarbinski 1965, Gasparski & Pszczolowski Eds. 1983.)

The philosopher is more interested in the justification of actions than in their design, which he gladly leaves in the hands of experts. For one thing he is interested in distinguishing different though related concepts of justification, which we elucidate by means of

DEFINITION 10.1 For any intentional (or deliberate or voluntary) human action A,

(i) A is *conceptually justified* $=_{df}$ A is taken in the light of the body of antecedent knowledge (i.e. A is planned, monitored and evaluated with the help of the best available knowledge relevant to it);

(ii) A is *empirically justified* $=_{df}$ the empirical (observational or

experimental) study of actions of the same kind as A has shown that they are efficient or at least effective, and that their desirable effects by far outrank their undesirable side effects;

(iii) A is *practically justified* $=_{df}$ A is both conceptually and empirically justified;

(iv) A is *morally justified* $=_{df}$ There exists at least one moral code according to which A is a right action;

(v) A is *wise* $=_{df}$ A is both practically and morally justified.

We are now in a position to state a rule that combines knowledge with morals:

NORM 10.4 Always choose the wisest of all possible courses of action.

We wind up this section with a sketch of a formal analysis of the concept of human action consonant with our ontology (Vols. 3 and 4). To begin with recall that all actions, whether human or not, are processes, i.e. changes in the states of some concrete thing or other. Call P the collection of all (lawful) processes, and A that of all possible human actions. Obviously, $A \subset P$. Human actions concatenate with one another as well as with natural processes. That is, if a and b are human or natural processes, their concatenations $a \cdot b$ and $b \cdot a$ are processes as well, i.e. members of P, though not necessarily of A. Symbolize inaction by '0', the identity element of P. By definition, 0 is the process such that, for any a in P, $a \cdot 0 = 0 \cdot a = a$. Because human actions combine with natural processes, the concatenation $\cdot$ is not closed in A but only in P. Hence this is the collection we must study. The simplest structure discernible in it is that of a semigroup with identity. Shorter: the totality of human actions is embedded in the structure $\mathscr{P} = \langle P, \cdot, 0 \rangle$, which is a noncommutative monoid. (It would be a mistake to think of $\mathscr{P}$ as a group because macroprocesses, which are the ones of interest in action theory, are irreversible. That is, it is not true that, for every action a, there is a counteraction $\bar{a}$ such that $\bar{a} \cdot a = 0$ or $a \cdot \bar{a} = 0$ capable of undoing the effects of a.)

However, the algebraic approach to human action is too coarse. For one thing it does not include time, whence the symbol '$a \cdot b$' is ambiguous, as it may denote either the joint or the successive performance of actions a and b. For another, the algebraic approach takes actions in themselves, for it makes no explicit reference to the two parties of any human action: the agent(s) and the patient(s). These shortcomings are overcome by adopting the systems theory formulated in Vol. 4, Ch. 1.

The basic concepts in our systems-theoretic treatment of human action are those of agent and patient, and their histories (or sequences of states) over a certain time interval. If we focus on the patient and neglect its reaction upon the agent, we only need consider the history $h_T(y)$ of the free patient y during a period T, and its forced history $h_T(y \mid x)$ when under the action of x. Each of these histories may be represented as an arc of a curve in the state space of the patient or, better, in that of the supersystem composed of agent and patient: See Figure 10.1. (Recall that a state space for things of some kind is the set of their really possible states, i.e. those compatible with the laws and constraints that characterize that species.)

Using the above concepts we make

DEFINITION 10.2 Let x denote an agent, and y an entity accessible to x.

(i) The *action* of x on y during the time interval T equals the (symmetric) difference Δ between the forced and the free trajectories (histories) of y in the state space of y (or of the supersystem composed of x and y):

$$A_T(x, y) =_{df} h_T(y \mid x) \Delta h_T(y);$$

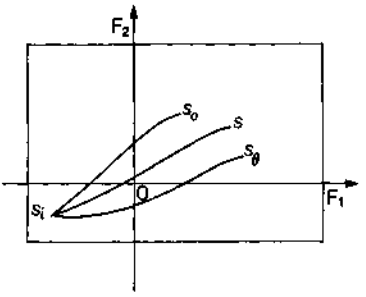


Fig. 10.1. Each of the three trajectories shown in the lawful state space S_L of the systems of the species in question represents a possible process undergone by a given specimen. (Actually the state space is a many-dimensional abstract space.) In one interpretation, each trajectory corresponds to a different strategy. In another, the upper curve, ending up at s_0, represents the history of the system while it is not being acted on by the agent. The lower trajectory, which finishes at s_θ, represents the theoretical or calculated trajectory, i.e. the one that the system would follow if it obeyed strictly the chosen strategy (perfect theory and no unforeseen external perturbations). The middle curve, ending up at s, represents the actual history of the system, which in general differs from both its free trajectory (no agent) and the calculated one. The efficiency of the action, or of the corresponding strategy, may be measured by some function of the difference between the actual s and the theoretical s_θ.

(ii) an action $A_T(x, y)$ is *effective* $=_{df}$ $A_T(x, y)$ contains the final or goal state s_f of y, i.e. $s_f \in A_T(x, y)$ — otherwise the action is *ineffective*;

(iii) an agent x is *inactive* with respect to all things of kind K during $T =_{df}$ For all y in K, $A_T(x, y) = \emptyset$.

1.3 *Goals, Means, and Plans*

Rational, responsible and minimally free people are not drifters but plan their activities and update their plans in the light of new events, fresh information, and changes in values and norms. Some of us plan our entire lives, usually with the help of relatives and friends, and attempt to live according to our life plans. There is nothing wrong with planning one's own life, and everything wrong with sticking to unfeasible or evil plans, or with allowing others to plan our own lives without our consent. All planning, to be efficient and morally right, must be participatory, i.e. it must involve all the people likely to be affected by its implementation. The prudential reason is simply that no individual is totally self-reliant and fully reliable: we are all dependent and fallible to some extent.

A plan or strategy may be analyzed as a function associating the ordered pair ⟨initial state, action⟩ with the goal state. More precisely, we propose

DEFINITION 10.3 Let s_i and s_f *denote the initial and final states respectively of a system under the action of a human agent. A feasible* (really possible) *plan* or *strategy* for performing such action is any function π such that

$$\langle s^i, m\rangle \overset{\pi}{\longmapsto} s_f,$$

where $m = A_T(x, y)$ is the action exerted by agent x on patient y during the time interval T in guiding y from s_i to s_f along a trajectory entirely contained within the lawful state space of y (or of the supersystem composed of x and y).

(For alternative conceptions of plans see Jantsch Ed. 1969 and Gale 1974.)

An important consideration in the choice of any plan is of course that of its efficiency. This typically technological concept may be characterized by

DEFINITION 10.4 A plan or strategy π is *efficient* $=_{df}$

(i) the means m of π is effective (on Definition 10.2 (ii)); and

(ii) the value of the goal s_f of π is much greater than that of its means m.

The choice of final state or goal is a technico-ethical problem. It is technical because it involves finding out whether the goal is attainable and affordable. And it is ethical as well because the change from the initial to the final state may have foreseeable harmful effects on someone, whether alive or to be born. On the other hand the design of efficient plans or strategies is a strictly technical problem best left in the hands of experts, in particular sociotechnologists — with the proviso to be noted anon.

Given a set of feasible plans or strategies, the problem of choosing among them the one(s) that will best agree with a given moral code is a strictly ethical problem. (Consequently the decision maker involved in projects likely to affect the well-being of many people assumes a heavy moral responsibility.) In our view the optimal plan or strategy is not just the most efficient one in view, in particular the one most likely to maximize the utilities of someone, but the one which satisfies

POSTULATE 10.1 The best plan or strategy for performing any human action A is the one most likely to satisfy, in the most efficient way, some of the basic needs or legitimate aspirations of all the people that may be affected by A, including its agent.

Though legitimate and useful, the means-end distinction is not absolute but situational, i.e. dependent upon circumstances. Sometimes the goal of an action is only a subgoal, i.e. a means for a subsequent action. And at other times the means turn into an end in itself, and the agent has to get hold of further means in order to attain it.

Example 1. We may work or fight for free speech and, having secured this right, we may exercise it as a means to defend or attack other rights — even free speech itself.

Example 2. The automobile, originally designed as a means of transportation, has become an object of worship, a status symbol, an obstacle to public transportation, and a health hazard.

Example 3. The struggle for power ought to be a means to a subgoal, namely the control of government for the sole purpose of helping people enjoy a satisfactory quality of life. Alas, all too often power becomes an end in itself.

Given that means and ends coevolve with society and change in value, it is unwise to stick dogmatically to any given set of means-goals pairs and, a fortiori, to any plans aiming at linking them. Instead, it is advisable to adopt

NORM 10.4 Goals, means and plans should be under constant technical and ethical scrutiny, which involves checking whether the goals are still worth pursuing, and the plans continue to be efficient, and altering either if they are not.

1.4 *Work*

All animals are active, but only humans earn their livelihood with the help of artifacts, whether primitive and material like scrapers and pebble axes, or sophisticated and symbolic like language and argument. Such activity is called 'work'. Work is distinguished from other kinds of activity in that it involves tools (material or symbolic) and is productive. Cooking a meal, mending a garment, designing a work schedule, laying bricks, and writing a paper for publication are instances of work. On the other hand eating a meal, going for a walk, reading a novel, studying for exams, and having a chat, are not.

All of the higher animals enjoy activity not only for the possible gains but for its own sake. For example, a hungry rat may prefer a new maze to going straight where it knows the food is; and a college student may prefer doing a hard and ill-paid job to being well paid for lying idly in bed all day long — as Hebb and others found long ago. As a result of his experiments in forced idleness, Hebb (1953) concluded that hedonism is psychologically false and proposed that "Man has an inherent need of work; that he is so made as persistently to seek a certain degree of discomfort, and persistently invite the risk of pain for the sake of that risk; and that a need for mental effort, including philosophic and religious thought, is built right into his nature from the first, as much as swimming is built into a fish". (See also Veblen 1899 for what he called "the instinct of workmanship".)

Why then the biblical belief that work is a curse? Why do so many economists, behaviorist psychologists, and utilitarian philosophers hold that man is basically a pleasure-seeker who will invest most of his energy in procuring pleasure, that he will learn only if he expects an external reward, and will avoid pain and effort at all costs? Why the persistence of the belief that only harsh criminal laws and a stern moral code, in conjunction with merciless competition in the labor market, will induce people to earn their livelihood by honest toil? The answer may lie in the working conditions of the slaves and serfs for which such laws and morals were designed. Heavy, joyless and often hazardous toil for the benefit of others is indeed a curse. So long as this is the case the

worker feels alienated — as Hegel, Feuerbach and Marx noted — and the master feels contempt for labor. (Work did not occur in Aristotle's or Saint Paul's lists of virtues.)

Marx thought that alienation results from private property. Experience under socialism, and experiment under capitalism, have shown otherwise. Human engineers and social psychologists have found that alienation is caused by extreme division of labor joined with lack of participation. The former results in monotony — hence in boredom and fatigue — and the latter in the absence of responsibility or commitment. These hypotheses, suggested by observation, have been confirmed by experiments in job redesign, involving job rotation and a measure of self-government, at least with regard to the design of work schedules and norms. (See Buber Agassi 1986.)

What is usually called a *work ethic* is actually an attitude or value judgment concerning work. On the whole, both the leisure class and the lumpenproletariat despise work; blue collar workers hold manual work (though not necessarily workmanship) in high esteem but tend to look down on the work of people in other groups, particularly intellectuals; and scientists, engineers and artists tend to go by the so-called Protestant work ethic — which might as well be called Chinese or Japanese, Northern Italian or Northern French. (See Buber Agassi 1980.)

However, the work value system ("ethic"), and particularly the attitude towards workmanship, hence quality control, depends on working conditions as well as on occupation. Thus self-employed people and small work teams, who design their own work schedules and norms, usually find satisfaction in their jobs and therefore work hard and well. They do not work because they feel morally obliged to, or just because of the pay, but mainly because they like to do what they do: work is their main hobby. On the other hand people working on routine tasks, without chances of self-realization and growth, and with no say in the organization of their own activities, tend to be dissatisfied and consequently to work below the norm. (See Scitovsky 1976.) Hence the need periodically to redesign and reallocate jobs. This, and safety, are two areas where the interests of workers and management should coincide.

We summarize and complete the preceding by adopting

POSTULATE 10.2 (i) All and only work useful to self or society is valuable. (ii) Useful work is the most valuable of all human activities. (iii) Of all useful work, the one devoted to the public good is the most

valuable. (iv) Work is both a basic human right and a basic human duty. (v) Every worker has the right and the duty to participate in the organization of his workplace.

By clause (i), work in the arms industry, the drug racket, or the pop culture industry is not valuable. By (ii) work should be exalted as a virtue. By (iii) government workers and volunteer workers, when they really act in the public interest, perform highly valuable work. By (iv) the employment rate (of women as well as men) is an index of social advancement. By (v) democracy in the workplace is a must. (See e.g. Vanek 1975, Zwerdlin 1980, Marković 1982.)

The recognition that work is a basic human right and duty entails that labor-saving devices should only be welcome when they do not contribute to unemployment. In particular, automation should be adjusted to our basic needs and legitimate aspirations, not the other way round. Robots should only be employed to eliminate hazardous or extremely boring jobs, never to create unemployment. (See K. Vonnegut Jr's *Player Piano* (1952).)

We compress the preceding into

Norm 10.5 (i) Everybody should work at what he does best. (ii) Nobody should be forced to take on a hazardous, exhausting, humiliating, or useless job. (iii) Working conditions should be constantly monitored and periodically revised so that they be technically, medically and psychologically satisfactory. (iv) Technology should only serve human welfare. (v) The first duty of industry is to serve the public.

We close this section noting that action theorists, with the sole exception of the Polish school of praxiology, have systematically ignored work. Why may this be so: general lack of academic interest in important problems, or aristocratic contempt for praxis?

1.5 *Summary*

Human action can be construed as the alteration, by the human agent, of the history of the system that is being acted upon, or patient. An action is effective if it leads the patient to the desired final state. And it is efficient if it does so in a manner that the resulting benefit by far outweighs the cost of the action.

Technologists, in particular sociotechnologists, study the way of optimizing the efficiency of deliberate human action. The moral philosopher is interested in putting such efficiency in the service of welfare. To this end he may propose certain moral norms, such as the injunction to refrain from unnecessarily destroying anything useful.

The wisest course of action is the one that is both the most efficient and morally the best. Preparation for such action involves the judicious choice of the goal and the design of a plan or strategy likely to lead to the goal in the most efficient way compatible with the moral constraints.

Work, particularly in industry, is a prime example of rational and planned action. Far from being a curse, work is, or can be made into, a source of pleasure; when not, it must be redesigned or reallocated. In any event, work is both a basic human right and a basic human duty. But not all work is morally justifiable; for example, work on the design or manufacture of offensive weapons, or of useless trinkets, is not morally justifiable. It we wish to preserve our industrial civilization we must subject industry to certain constraints aimed at preventing industry from harming our health and deteriorating the environment. Industry is an admirable servant but a redoubtable master. Let it be a servant of humankind.

2. COLLECTIVE ACTION

2.1 *Private and Public Interests*

Human actions are performed to further the interests, real or apparent, of individuals, groups, or entire societies. (Disinterested actions are no exception: they further the interest of someone other than the agent.) These interests are biological, economic, cultural, or political. Although these concepts are familiar, they are important enough to warrant explicit definition. We propose

DEFINITION 10.5 A decision or action A is of

(i) *private interest* $=_{df}$ A is intended to affect the well-being of an individual;

(ii) *special group interest* $=_{df}$ A is intended to affect the well-being of the members of a social group other than a family;

(iii) *public interest* $=_{df}$ A is intended to affect the well-being of most members of a society.

Obviously, not every decision or action *of* interest to X is *in* the best interest of X. We submit that we should do our best to engage only in actions that are morally justified as well as expected to be practically efficient. But first another definition, which specializes the rather noncommittal Definition 10.1 (iv) in Sect. 1.2:

DEFINITION 10.6 A decision or action A is *morally justified* $=_{df}$ A is intended to contribute to the well-being of the people it is likely to affect, without preventing anyone from meeting his basic needs.

And now a principle:

NORM 10.6 (i) We should only take morally justified decisions or actions. (ii) A decision or action A taken to further the public interest prevails over both special and private interests if and only if A is morally justified. (iii) A decision or action A taken to further a special interest overrides private interests if and only if A is morally justified.

Obvious examples of morally justified actions are raising taxes to finance public services, confiscating guns, jailing and reeducating criminals, manufacturing useful products, and exposing quacks. Of morally unjustified actions: raising taxes to finance an aggressive foreign policy, jailing political opponents engaged in peaceful activities, censoring scientific research, and circulating malicious gossip. Note that, whereas some of these actions are individual, others are collective.

Individuals can influence the state of society by acting singly or jointly. They do the former when they buy a consumer item or when they vote, the latter when they work in a firm or a government, or when they participate in a collective action such as a strike or a political rally. We must not think of collective action in a holistic fashion, i.e. as the action of a body of people as if it had a purpose of its own, but in accordance with

DEFINITION 10.7 An action is *collective* $=_{df}$ There is a social group all the members of which engage in individual but coordinated action with the same purpose, though not necessarily with the same motivation.

More precisely, using Definition 10.2 we may construe the action of a social group G_1 on the social group G_2 as the union of the individual actions of the members of G_1 upon those of G_2 during a given period T, i.e.

$$A_T(G_1, G_2) = \bigcup_{\substack{x \in G_1 \\ y \in G_2}} A_T(x, y).$$

Note that, although every social action is the "sum" of individual actions, the total outcome may be a radical alteration of the social structure of the two groups involved: think of social revolutions, whether violent or quiet.

The solo recital and the orchestra performance exemplify individual and collective action respectively. Collective action is characterized by cooperation and, if it is to be effective, takes planning and organization.

Even individual action may require some planning and the cooperation of others. For example, a soloist cannot do without the help of a manager, some technicians, and a number of anonymous and unwitting helpers, such as letter carriers and newspaper vendors — unless of course he only plays for a small circle of friends.

Cooperation is all the more necessary when the goal is to solve some social problem. The reason is obvious: Social problems are many-sided and affect many people, whence their solution involves large human and material resources. Loners wield no power. Regrettably much contemporary social science is concerned with isolated individuals and overlooks collective action — as a result of which it sheds hardly any light on social problems. A good example of a well-meaning but ineffectual academic exercise is social choice theory, which purports to map individual preferences into social preferences. (e.g. Arrow 1951, Sen 1970, Bonner 1986). Though exact, this theory is shallow, unrealistic, and ridden with paradox. It is superficial for focusing on subjective preferences, which need not reveal objective needs; and it is unrealistic for assuming that individual choice is always free. The first flaw results from the positivistic rule that the scientist should stick to observable facts, in this case choice behavior. But in real life choice, unless it is impulsive rather than rational, is only the last link of a chain that the scientist ought to investigate in its entirety: Need or desire-Consciousness of need or desire-Survey of available or procurable means-Means evaluation-Risk evaluation-Choice. As for the assumption that everyone is free to choose anything, it overlooks constraints and commitments of all kinds (in particular moral duties), and it ignores the fact that we often abstain from choosing because we do not like any of the options offered us. Because of these basic flaws, we need not dwell on the center-piece of the theory, which is Arrow's paradoxical "general impossibility theorem", according to which social choice cannot be both rational and democratic.

To reduce politics to voting, and political problems to devising workable electoral schemes, is just as simplistic as to reduce the economy to the choice of breakfast cereal, and economic problems to its pricing or marketing. Social problems pose the conceptual problem of designing organizations or even entire social orders capable of coping with them, and the practical problem of finding or producing the means to set up such organizations or effect such social restructurings. The former or theoretical problem will be tackled in the following

chapter. Let us now deal summarily with some of the conceptual issues raised by the latter or practical problem.

People who wrestle with social problems join or set up organizations and, by participating in them, engage in collective actions. Such organizations may be governmental, private, or mixed; they may further the interests of groups or of entire societies; and they may be transient like committees, or permanent like unions or clubs. The design and assembling of an organization presupposes that its possible value has been assessed beforehand; and the continued existence of the organization calls for its periodic reevaluation. Such evaluations may be helped by

DEFINITION 10.8 Let S be a society, G a special group of S, and O an organization in S. Then

(i) O is *valuable to* $G =_{df}$ on balance O is beneficial to all or most of the members of G (i.e. the benefits accruing to nearly every member of G from belonging to G outweigh its costs);

(ii) O *is valuable to* $S =_{df} (a)$ O is valuable to G and (b) O does not hinder any member of S from meeting her basic needs and legitimate aspirations.

For example, whereas a public utility and the traffic police are, if honest and efficient, valuable to all the society they serve, a private army or club, as well as a church, are only valuable to its members. This is why tax payers have the duty to support the former but not the latter. Special interest organizations should be viewed with favor only if they do not act against the public interest. Sometimes they undermine public interest organizations, to the point of causing the decline of entire societies (Olson 1982). This suggests

POSTULATE 10.3 An organization is the more valuable the larger the number of people whose well-being it helps maintain or improve without thereby hindering anyone from meeting his basic needs.

The proviso is needed to disqualify organizations that thrive on the exploitation or even extermination of national minorities or foreign peoples.

One of the problems posed by the design or redesign of any organization is whether it should be centralized or decentralized, authoritarian or democratic. Since these concepts are somewhat tricky we may as well define them:

DEFINITION 10.9 An organization O is *centralized* $=_{df}$ O contains a single component or subsystem, its *center* or *nucleus*, on which

the activities of all the other components of O depend. Otherwise, i.e. if it contains either no such center or two or more centers, O is *decentralized*.

Examples of centralized systems: an atom and a firm managed by its owner.

DEFINITION 10.10 An organization O is

(i) *authoritarian* $=_{df}$ the relation between the center of O and the other members of O is that of one-sided subordination (no feedback);

(ii) *semidemocratic* $=_{df}$ the members of O other than its centers obey the latter but there are recognized mechanisms (such as suggestion boxes, quality control circles, and grievances committees) allowing them to react (information feedback);

(iii) *democratic* $=_{df}$ all the members of O participate, either directly or by delegation, in the activities of the centers of O.

Clearly, centralization and democracy are mutually independent. An organization can be centralized but democratic, and polycentric but authoritarian. Moreover there are degrees of decentralization; for instance, the links of a supermarket chain may or may not have local autonomy. Likewise there are degrees of democracy, from representative to participatory. See Figure 10.2.

The choice of organization is technically and morally important. Efficiency is best achieved by decentralization and participatory democracy — as long as they are combined with technical expertise. Decentralization enhances agility, participatory democracy facilitates involvement and cooperation. And both together stimulate personal initiative and responsibility. Moreover they alone can prevent exploitation and corruption.

However, decentralization and democracy can lead to stagnation or

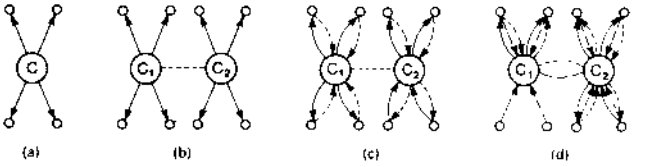


Fig. 10.2. Four types of organization. Central circle: management. Small circle: rank and file member. Full line: power relation. Dotted line: information link. Broken line: participation. (*a*) Centralized authoritarian. (*b*) Decentralized authoritarian. (*c*) Decentralized semidemocratic. (*d*) Decentralized democratic.

even chaos unless combined with technical expertise. This particular combination is so important that it deserves a name of its own:

DEFINITION 10.11 A social system S is a *technodemocracy* $=_{df}$ S is democratic and its policies, plans and decisions conform to up to date technology.

Technodemocracy should not be mistaken for technocracy, or the rule of technologists. The latter should be neither on top nor merely on tap, but should actively participate in the democratic process of designing and running an organization or a society.

In a technodemocracy people are reasonably well-informed about the business of their organization and they get involved actively in its decision-making process instead of limiting themselves to casting a vote, once in a while, for a professional politician or labor organizer. By becoming involved they do not feel alienated but like their work and are ready to help their coworkers. Technodemocracy is thus an effective means for implementing the basic norm *Enjoy life and help live.*

2.2 *Social Policies and Plans*

A policy is a set of principles to guide plans, decisions and actions of some kind. (Barbarism: 'philosophy'.) For instance, each university has its own admissions policy, and each government its own cultural policy. A *social policy* is a policy aiming at solving social problems, i.e. problems concerning an entire social group or even a society.

A good social policy is realistic and has a socially valuable goal. To be both realistic and socially valuable, a policy must be *technically sound* rather than amateurish, *global* rather than sectoral, *long-sighted* rather than myopic, *participatory* rather than authoritarian, and it should seek to *improve the well-being* of the greatest number instead of securing privileges for the few. We take this last condition for granted in view of the values and morals advocated earlier in this book. Let us justify the four preceding conditions.

A social policy is bound to be ineffectual or worse unless it is designed with the help of the best available knowledge: enthusiasm and dedication are no substitute for the scientific knowledge of social mechanisms. Moreover, given our scant knowledge of the latter, every important new policy should be tried out experimentally on a sample group before being applied to the whole. Only such a test can indicate whether the proposed policy does, in fact, effect what the policy-makers seek. Governing in the light of social experiment is slower but more responsible and less wasteful than governing by decree.

Social policies should be global, not sectoral, because social problems are many-sided, and this because every person is not only an animal but also a member of a number of social groups. For example, it is unrealistic to promote public education without at the same time improving the health and income of the more disadvantaged people, for a sick or hungry child or youngster is a poor learner. Likewise any purely economic policy of economic growth is unrealistic, because modern industry can employ only workers capable of understanding written instructions and of learning new skills. As well, modern industry requires an institutional framework and a government that allows it to conduct their business in an efficient manner.

The need for long-term policies becomes obvious when one realizes that most social problems have deep roots in the past, and that whatever is done to solve them is bound to take a long time and to affect future generations. For example, the eradication of certain plagues and of illiteracy may be accomplished in one decade, but that of poverty, power abuse and moral corruption may take several decades of hard and persistent work. There are no quick fixes for social problems.

Finally, the involvement of all the interested parties in the policy making process is necessary for practical as well as moral reasons. The former because only people who participate in that process feel responsible and accountable for the implementation of the policy, hence take their job to heart and devote it their effort and imagination. The moral reason is that authoritarianism violates human rights and divides society into moral agents — the rulers — and moral pawns — the ruled.

We compress the preceding into

POSTULATE 10.4 A good social policy is a global (or systemic) and long term policy aiming at increasing social welfare, and designed with the help of the best available relevant knowledge, as well as with the participation of the people likely to be affected by its implementation.

Now, a policy without plans to implement it is like a constitution without legal codes, that is, a rhetorical statement of intention. If one intends to have a policy implemented, he will insist that it be accompanied by realistic plans. A plan or strategy is of course a prescription for guiding the evolution of a system from its present state to a prescribed goal state. (Recall Definition 10.3.) Just as reflex and impulsive action are typically animal, so planned action, particularly when the plan is rational and long-sighted, is distinctively human. However, we still tend to be improvident in such vital areas as human reproduction

and environmental management. This deficiency is in marked contrast with the detailed military plans for annihilitating all life on our planet.

The general concept of a plan or strategy was defined in Sect. 1.3. A *social plan* (or *program*) is a prescription for guiding (goading or forcing) the evolution of a large-scale social system according to a certain social policy. A social plan may be local, national, regional, or world-wide, according to the size of the corresponding social problem and the vision of the decision makers. In line with Postulate 10.4 we propose

POSTULATE 10.5 A good social plan is one designed to implement, in a participatory and technically adequate manner, some aspect(s) of a good social policy.

Good social planning is the exception: most social plans are sectoral, myopic, authoritarian, and either too timid or too radical. In particular, most national development plans have been designed by myopic economists who equate progress with increased aggregate economic activity, and have consequently neglected the biological, cultural and political components of development. In the best of cases such one-sided plans have brought about ephemeral bouts of industrial growth — but at the expense of the environment, public health, education, culture, and civil liberties. Since society is a system composed of a number of mutually dependent subsystems, neither of which is the prime motor, it cannot progress as a whole unless all of its components advance synergically at the same time. A bad social plan can be worse than no plan at all.

Hayek (1944) and his fellow individualists oppose all kinds of social planning, holding that it is "the road to serfdom". However, there is nothing wrong with planning *per se*, which is "the orchestration of life", as Neurath (1945) wrote in reply to Hayek. It all depends on the goal and the means used to attain it. A plan to plunder or conquer a foreign nation, and the more so the whole world, is evil. But a technically adequate plan to improve social welfare by democratic means, or to put an end to the arms race, or to environmental degradation, is good, nay necessary for the survival of humankind.

It is not just that plans are necessary to orient individual and collective action in the contemporary world. Good planning is the road to freedom from want as well as to freedom to become what one wants without trampling on the rights of others. Slaves need not plan: their masters plan their entire lives for them. Nor do derelicts: they live, or rather die slowly, from day to day. But everyone else and every social organization needs some plan of action. Improvidence is imprudent for

leaving one's life, or that of one's organization, at the mercy of others. And it is morally objectionable as well for involving the neglect of duties and the relinquishing of right.

Now, global or systemic plans are necessarily central: they must coordinate local plans in order to secure efficiency and a fair distribution of the available resources. And such centrality is bound to strengthen the power of the ruling élite at the expense of local autonomy and individual freedom. Hence social planning would be bad after all. However, this conclusion depends on the premise that the government is not democratic, whence its social plans are not participatory. We have insisted before that a good social plan is participatory. Such a plan will not seek to rule in minute detail the life of every individual, but to help him find his own way without exploiting or oppressing others. Moreover, a participatory plan will not be a final blueprint but rather a sequence of blueprints designed to cope with changing circumstances and new information: it will be fluid rather than rigid. (See Vol. 7. Ch. 5, Sect. 1.1 and Ackoff 1974.) In sum, the question is not whether we need plans, but only what kind of plans will best suit the individual and public interests. The general answer to this question is provided by Postulates 10.4 and 10.5.

Let us finally note that, just as any realistic budget will include a slot for unforeseen expenditures, so any realistic social plan will make room for unforeseen events. These are unavoidable because of the very nature of large systems and of the imperfection of our knowledge of them. In particular, one must be prepared to cope with natural catastrophes of known kinds, such as droughts, and one must make room for the unintended consequences of our actions, particularly when not well-coordinated. As well, we must allow for changes in values, for our insufficient knowledge of the present state of the world, and for the dearth of dynamical models of society which enable us to make reliable social forecasts beyond a few months. Still, the answer to the unforeseen and to ignorance is not drifting but research and participatory planning.

In short, policies and plans are indispensable because they are, at least in part, self-fulfilling forecasts. The future belongs to those who design and build it rather than to those who wait for its arrival.

2.3 *Cooperation and Competition*

Cooperation, of which group action is but an example, is pervasive in all animal societies. Without it there would be no social groups, and

without these the individual would be lost, for nobody is totally self-sufficient. Cooperation is then an essential survival mechanism. Therefore individualism, and particularly egoism, go against the grain of biology and sociology.

As a matter of fact cooperation occurs on all levels of reality. Examples of cooperative processes are condensation, molecular synthesis, cell self-assembly, and the formation of biological colonies and communities, as well as the emergence of human groups. But competition too is pervasive in nature and society. Examples: the competition of two molecules for a third in the course of two concurrent chemical reactions, of two cells or multicellular organisms for a nutrient, of two males for a female, of two firms for a market, of two countries for a third. Given the pervasiveness of both processes we may as well define the corresponding concepts in general terms:

DEFINITION 10.12 If a and b are two concrete things,

(i) a *helps* (*obstructs*) b in the respect(s) $R =_{df}$ some of the functions (activities, processes) of a facilitate (hinder) the function(s) of kind R of b, and none blocks them in the same respect;

(ii) a *cooperates* (*competes*) with $b =_{df} a$ helps (obstructs) b in some respect(s) and conversely.

Note the following points. Firstly, neither cooperation nor competition requires intention or consciousness: either of them may occur among inanimate systems, organisms lacking an advanced nervous systems, or social systems. Secondly, cooperation in a given respect is compatible with competition in another. Thirdly, we do not distinguish competition from conflict.

We cooperate with other people for a number of reasons: out of sympathy or empathy; for the pleasure of feeling that we belong in a group; out of self-interest, i.e. for reckoning that such behavior may result eventually in some advantage for ourselves; from a sense of duty; or from fear of social sanction. The multiplicity of solidarity sources refutes the postulate of individualistic ethics and individualistic social science, that we only act from self-interest. It also helps dissolve the pseudoparadoxes encountered by social scientists blinded by individualism: Why most people do some favors without expecting anything in return; why most of us are not criminals; why we normally prefer reciprocating to defecting; and even why we often vote knowing that a single vote is unlikely to make any difference. All prosocial behavior, in particular cooperation, is bound to look paradoxical to the individ-

ualist, for he believes that people are only moved by self-interest. This is the case with all the game theorists who equate rationality and selfishness. However, a few students have used the very same theory to prove that cooperation pays more than defection, at least when the probability of a next encounter is not negligible. (See e.g. Rescher 1975, Axelrod 1984, Alexander 1987.) Since the same theory is being used to derive certain theorems and their negations, there must be something basically wrong with it. We claim that the trouble with decision theory and its applications is that it employs subjective values and probabilities: Recall Ch. 3, Sect. 3.3. Let us go back to real life.

The family, the voluntary or non-profit organization, and the cooperative firm, are good examples of the benefits of cooperation. Let us take a quick glance at cooperatives, of which there are several thousands throughout the five continents. One of them, the Mondragón complex in the Basque Country, has recently attracted the attention of a number of social scientists (e.g. Thomas & Logan 1982). Its remarkable sucess has been attributed to the following factors: (*a*) Mondragón is a system with more than 100 components, mostly factories, distributed among several sectors of the economy; (*b*) it has its own bank, so it does not depend on a hostile financial system; (*c*) it has its own R&D centers — which keep it technologically up to date — and its own B&A schools, which train and recycle its managers; (*d*) it is decentralized, hence flexible; (*e*) it is self-managed, hence it provides work satisfaction and its concomitants; (*f*) its members have a pecuniary stake in it, and (*g*) its founders and leaders have aimed at service rather than just profit. There are similar success stories elsewhere, which suggest that economic democracy and self-management are not utopian. We shall return to self-management in Sect. 2.5.

Cooperation is one side of the social coin; the other is competition, which is just as pervasive. Dialectical philosophies notwithstanding, competition is not confined to pairs of opposites. Rather, whenever the available resources are limited, similarity of needs or interests leads to conflict. In other words similars, rather than opposites, are likely to compete for any given natural or social niche. Competition is not just unavoidable: it is also necessary to promote competence, quality and productivity, because it stimulates initiative, creativity and industriousness. Without competition, mediocrity and complacency are bound to set in, and consequently stagnation or decline are bound to occur.

Now, all competition hurts, and unbridled competition destroys

individuals and entire social groups. Therefore it must be kept under control. The moral reason for controlling competition is obvious: we must help others to live. The prudential reason is no less evident: the concentration of power is only good for those who wield it, and it elicits revolt, which may be disastrous for everyone.

Conflicts can be resolved by force or by peaceful means. The latter are preferable for being less wasteful, avoiding revenge, and observing the supreme moral principle *Enjoy life and help live*. The main peaceful method of conflict resolution is negotiation or bargaining, which combines confrontation with cooperation. Bargaining is of course a process wherein every proposal or demand is met with a counter-proposal or concession, until the last demand is satisfied — or not, in which case the conflict is handed over to an arbiter, or left unresolved.

Bargaining is of interest to the moral philosopher on several counts. Firstly, is it ever justified to refuse to negotiate? In our view never, particularly when human lives are at stake. Secondly, what is negotiable and what is not? In our view only life is not negotiable; everything else, including one's own well-being, is negotiable. Thirdly, what is a fair deal? Answer: A deal is fair if and only if one party's losses are compensated for by its gains. When the mutual concessions can be quantitated, a fair deal is one wherein the value of each party's concessions is the same as that of the other. Unless such balance obtains, the deal is unfair, i.e. one of the parties takes advantage of the other. The best deal is of course that where the two parties stand to gain while no third party is harmed.

In real life the outcome of a bargaining process is usually determined by the relative bargaining power or leverage of the parties concerned. For example, workers have little bargaining power when they are not unionized, or when the unemployment rate is high, or when they compete with machines; and, unless they join forces (as e.g. in the OPEC), the less developed nations have hardly any bargaining power *vis-à-vis* the industrialized ones. Because such inequalities give rise to unfair deals, the contractarians (e.g. Gauthier 1986) are mistaken in holding that contracts exude morals: very often they just legalize predation.

However, in the long run immoral deals do not pay. In fact, an unfair deal is likely to cause the resentment of the weaker party, which may eventually repeal the contract and seek redress by stealth or by force.

(For example, the Nazis used the unfair Treaty of Versailles as a bait to persuade the German people to go to war.) Because unfair deals are likely to be short-lived and the seed of discontent, a prudent negotiator will only strike fair deals. Prudence and morality go hand in hand.

2.4 *Competitive Cooperation*

Cooperation is not good in itself: its value depends upon its goal. Organized crime, lynch mobs and aggressive armies furnish examples of antisocial cooperative behavior. (See Olson 1982.) And competition is not always bad. For example, peaceful competition over excellence in learning, productivity, altruism, or sports, is good.

Nor is either conflict or synergy the driving force of every system in every circumstance. Sometimes competition is the engine, at other times cooperation, and at still other times, a combination of the two. (See Bunge 1981.) Such a combination is all too often overlooked. Yet it is well known that, in order for a system to compete successfully, it must be internally synergic to begin with: internal division weakens any team. Still, such synergy may and need only be partial. Indeed, in order for the members of a social system to enjoy belonging to it, they must be able to pursue their own interests, which are likely to conflict in some regards with those of some fellow members. (Think of a family or of a chess club.) Hence cooperation in some respects may coexist with competition in others. This is why Definition 10.2 relativizes cooperation and competition.

It follows that the dialectical or conflict-centered philosophies of society, like Marx's, are just as one-sided as the synergistic or solidarity-centered ones like Durkheim's. Since each view illuminates only one side of the social coin, both are inadequate for understanding it and, a fortiori, for altering or controlling it in a rational and effective way. These views are not only one-sided but also self-contradictory. Indeed, orthodox Marxists are supposed to favor a classless society and a peaceful international order, but according to dialectics both would be stagnant for lack of conflict. On the other hand some of those who preach class solidarity also uphold class stratification, and occasionally aggressive nationalism as well.

Since in real life we engage in cooperation as well as in competition, and since each of them has its positive and its negative aspects, we

should explore how best to combine these two modes of social behavior so as to prevent antisocial action. The most general exploration of this kind is mathematical, for it overlooks the peculiar properties and a fortiori the laws of the entities concerned. We proceed to presenting the bare bones of extremely simple (hence somewhat unrealistic) cases of pure cooperation, pure competition, and competitive cooperation.

Consider two entities, to be called 1 and 2, characterized by certain time-dependent functions A and B respectively, which may be thought of as the amounts of things consumed or produced by the entities concerned. We shall postulate certain simple relations between A and B and their respective rates of change $\dot{A}$ and $\dot{B}$, and shall derive the main consequences in each of the three cases.

(i) *Pure cooperation*

$$\dot{A} = aAB, \quad \dot{B} = bAB, \quad \text{with} \quad a, b > 0.$$

Upon dividing the second rate equation by the first, and integrating, we obtain the solution of the system in the state space formed by A and B:

$$B(t) = (b/a)A(t) + c, \quad \text{with} \quad c = B(0) - (b/a)A(0),$$

where $A(0)$ and $B(0)$ are the initial endowments of the parties in question. In short, the prosperity of each component is proportional to that of the other. Examples: a cohesive soccer team and a cooperative.

(ii) *Pure competition*

$$\dot{A} = a(A - B), \quad \dot{B} = b(B - A), \quad \text{with} \quad a, b > 0.$$

That is, the growth (or decline) of each component is the faster, the greater their difference. The solution of the system of equations in the state space $A \times B$ is

$$B(t) = -(b/a)A(t) + c, \quad \text{where} \quad c = B(0) + (b/a)A(0).$$

Each of the components can only gain at the expense of the other. Furthermore, which component will prevail is determined by the initial endowments. Examples: competition between a small and a big firm, and between an industrialized and an underdeveloped nation.

(iii) *Competitive cooperation*

$$\dot{A} = a(\alpha - A)B, \quad \dot{B} = b(\beta - B)A, \quad \text{with}$$

$$a, b > 0, \alpha > A(0), \beta > B(0).$$

Component 1 helps 2 in proportion to the latter's need or deficit, i.e. in such a way that the imbalance $\beta - B$ will be offset. In turn, component 2 contributes to 1 in proportion to the imbalance $\alpha - A$, though not neccessarily with the same intensity (i.e. a and b may be different). This mutual help continues as long as there is a deficit or negative balance. It ceases on attaining satiety, i.e. when $A(t) = \alpha$ and $B(t) = \beta$, and it becomes negative as soon as there is a superavit, i.e. when $A(t) > \alpha$ and $B(t) > \beta$. That is, as soon as one of the parties starts getting more than it needs, the other starts opposing it, thus inhibiting its growth. If both parties have the same requirements (i.e. $\alpha = \beta$) and each of them helps its partner as hard as the other (i.e. $a = b$), both do equally well regardless of their initial endowments. (For a detailed mathematical study see Bunge 1976.)

This mathematical model suggests designing social systems in which every member helps his fellow member in proportion to his own ability as well as to the other's needs, while controlling the latter's growth and being in turn controlled by it. In this way domination, scarcity and waste would be avoided by combining the best of cooperation with the best of competition.

In principle one might think of the dual combination, of internal competition with external cooperation. Such a combination is feasible as long as internal competition does not lead to the collapse of the system.

2.5 *Management*

The management of an organization is the regulation, in particular the coordination, of the social behavior of its members in view of the efficient performance of the tasks of the organization. (See Vol. 7, Ch. 5, Sect. 4.1.) Management may be authoritarian or democratic, traditionalist or scientific, but it must be there if the organization is to function as a well-integrated system. Even the management of natural resources is ultimately the management of people: the regulation of the way they exploit, renew or enjoy the resources. Therefore Proudhon's famous saying, that after the next social revolution politics would become "the administration of things not of people", was mistaken. So was the belief of Lenin and Mao that management could be improvised or even replaced with revolutionary enthusiasm.

Because management controls behavior, it allocates duties and may restrict rights. Consequently management poses problems that are at

the same time practical and moral. Two of these problems are: Who should manage, and Which is the best management style? Technical expertise, e.g. the use of operations research, is certainly part of the answer. But it is not the whole answer, because the most efficient management is that which favors the active participation of all the interested parties, for people function best when they become involved and feel responsible. Moreover, participatory management is not only efficient: it also satisfies the principle of qualified equality (Ch. 6, Sect. 2.2). In short, technodemocracy, or the combination of expertise with democracy (Definition 10.11), is the best answer to the technico-ethical problems of management.

Participatory management comes in various strengths. The weakest form occurs in privately owned enterprises where each work group determines its own work schedules and job rotation schemes, and studies proposals for improving product (or service) quality and job quality. (See Herbst 1974 and other publications of the Tavistock Institute in London, Buber-Agassi 1986, and Halal 1986.) The strongest form of participative management occurs in cooperatives owned and run by the workers themselves, of which there are more than 600,000 in the world. (See e.g. Vanek Ed. 1975, Miller 1977, Selucky 1979, Turkish Comisso 1979, Clayre Ed. 1980, Schweikert 1980, Zwerdlin 1980, Marković 1982, Dahl 1985.)

All organizations face the size problem. The classical view, defended by orthodox socialists as well as by procapitalists, is summarized in the slogan "Big is beautiful". The anarchist view is that "Small is beautiful". Actually neither giantism nor dwarfism is good or bad in itself: The optimal size of an organization depends on its specific tasks. Some social systems, such as day care centers, corner grocery stores, and watch assembly plants, are best kept small; others, such as steel mills, large city water works, and international organizations, are necessarily large. However, if we seek to optimize job satisfaction and participation as well as efficiency, we had better seek the division of every large enterprise into manageable subsystems, and the integration of all small enterprises into well-coordinated federations. Every unit should be big enough to function efficiently, and small enough to manage itself.

The problem of the size of a cooperative has a moral aspect, namely this. If the number of cooperants is too small, they will exploit themselves; and if it is too large, most of them will be left out of the decision-making process, and some of them will be free-riders. But

even after having achieved the optimal size, this size may have to be altered to make room for technological changes. Hence planning should be flexible and, in particular, it should allow for splittings and mergers. In any event, technical considerations, e.g. with regard to efficiency, go hand in hand with moral ones, such as the avoidance of exploitation, in particular parasitism, and the achievement of full employment.

What holds for the size of economic units, such as cooperatives, also holds, *mutatis mutandis*, for cultural and political systems. In particular, it holds for the organizations in charge of the management of public goods, i.e. governments. The size of a government should depend exclusively on the social services it performs, and on the extent to which the civil society it manages is democratic, i.e. organized into self-governing units.

A government that facilitates the self-government of all organizations, while at the same time protecting the basic rights of all individuals, can be trim, hence unoppressive and inexpensive. Strong governments are necessarily big, hence oppressive in some way or other, and expensive. This is not to say that we should aim for a minimal state the sole function of which is to protect privilege. Instead, we should aim for a minimal state which facilitates the pursuit of individual well-being and the survival of humankind.

The survival of humankind is jeopardized by a number of global problems, for which no national government has the right or the power to impose global solutions. Only a world government could possibly tackle such world-wide problems. The world government should confine itself to managing the natural and cultural heritage of humankind. It would be impractical and immoral for it to attempt to control every single social group on earth: it would have to respect the authority of every member government over its own jurisdiction. But at the same time national sovereignty would have to be limited so as not to put the survival of humankind at risk. In international relations, like in interpersonal relations, the norm should be: Your freedom ends where mine begins, and the freedom of all can only be attained through equity, mutual help, and respect for international law. The United States of the World may now seem a naive utopia, but it will have to be established gradually if the human species is to survive. (See Albert 1985 on the roles of utopias.) We shall return to this matter in Ch. 11, Sect. 4.

The general management principles sketched above are summarized in

NORM 10.5 (i) All management should be technodemocratic, i.e. it should combine technical expertise with self-government. (ii) All of the organizations of a given kind, formed by individuals, should join to form federations on various levels (e.g. local, regional, national, and international). (iii) The preceding principles should be applied, in particular, to governments. (iv) The task of a world government would be to work on global issues, i.e. world-wide problems that cannot be solved by any national government.

2.6 *Summary*

Collective or group action is coordinated individual action. It is cooperative and, when efficient, it involves planning and organizing: spontaneity is a guarantee of chaos and failure. Organizations can be centralized or decentralized, authoritarian or democratic, and they can be run traditionally or scientifically. The combination of decentralization and democracy with technical expertise may be called 'technodemocracy'. Technodemocracy is practically desirable because it benefits from sociotechnology and, by involving most of the members of the organization, it gives them a stake in it. And it is morally desirable because it makes demands on individual responsibility and gives everyone a chance to protect his own interests and to help others do their job in a way convenient to all.

Social issues are tackled in the light of social policies. A good social policy is scientifically sound, technically feasible, and it aims at promoting the public good through the protection of legitimate individual interests. It is global or systemic not sectoral, long-sighted not myopic, and participatory not authoritarian. A social plan or program is a prescription for guiding the evolution of a social system in line with some social policy. In itself, planning is morally neutral: its value depends on the values of its goals and means. Some plans promote welfare and liberty, others misery and oppression. Good social planning is a means to attain freedom from want as well as the freedom to become what one wants to be without causing harm to others.

Social life has two sides: cooperation and competition. Without the former there would be no social groups, and without the latter progress, if at all, would be sluggish. To enjoy life we must combine cooperation with competition in such a way that the former does not lead to stagnation or decline, and the latter to destruction. Cooperation within a group or between groups is necessary but it may be limited in some

respect, while there is competition in others. We combine cooperation with competition whenever we engage in a bargaining process to resolve a conflict of interests. Another way of practicing competitive cooperation is to stimulate cooperation as long as neither of the parties concerned has achieved its legitimate goals, and to promote their competition thereafter.

The management of every organization faces, among others, the problem of optimal organization size, which is ethical as well as practical. The size of an organization should be determined by its tasks and internal structure. Neither smallness nor bigness is good or bad in itself. However, in order to facilitate self- management all large organizations should be split into smaller though mutually linked units. The slogan might well be the devise of a Montreal drugstore: "Big enough to serve you well, small enough to get to know you". However, such decentralization should be accompanied by regional or even world-wide federation.

The global issues now facing humankind can only be faced by world wide organizations. Eventually a world government will have to be established to manage the common heritage of humankind and to prevent its extinction. It will be one world or none.

CHAPTER 11

SOCIAL PHILOSOPHY

We are judged by what we do, but we act according to our beliefs, values and norms — or those of our masters. When we render our social beliefs, values and norms explicit, and organize them into a coherent system, we obtain a social philosophy or ideology. A social philosophy will be sound or unsound, depending on whether or not it is based on science and technology, as well as on a science-oriented ontology, epistemology, axiology, and ethics. And it will be good or bad, depending on whether it enhances or jeopardizes everyone's chance to enjoy life and to help others live. Hence we should not underestimate the power of social philosophy: it can save or destroy us. True, most policy and decision makers do not read philosophers unless they are bad or dead. Still, every social policy has an underlying social philosophy. Hence it behooves social philosophers to watch the political process and to attempt to influence it in the right direction, instead of playing game-theoretic games.

Every social philosophy deals with social issues. And every social issue has a moral aspect, i.e. it involves a moral problem in addition to a practical one, for it concerns rights and duties rooted in needs and wants. At first sight such problems as devising an efficient method of tax collection, mail distribution, waste disposal, ballot counting, or the teaching of mathematics, are purely technical problems. On second thought every one of these problems raises ethical questions, such as those of loopholes in tax laws, unemployment caused by automatic mail sorting, environmental deterioration caused by most current waste disposal procedures, fraud that may be committed in ballot counting, and discrimination against the economically and culturally deprived in the learning of mathematics. In short, all social issues pose ethical problems, whence they cannot be resolved without appealing to some (explicit or tacit) ethical principles in addition to the findings of social science and sociotechnology.

Because of their magnitude, social issues call for collective action (Ch. 10). In turn, group action raises ethical problems, such as whether we are morally justified in being either conformists or revolutionaries in

view of the facts that conformism condones much misery, and revolutions may be new sources of unhappiness. In line with our ethical views, we favor permanent nonconformism and permanent social reform. We favor nonconformism because no society can be perfect, and no individual can remain morally clean if he does not rebel against social imperfections. And we favor social reform rather than social revolution because violence is wasteful and ends up by eroding everyone's morals. (After all, wars, whether civil or international, hot or cold, are fought to be won, and when the supreme goal is victory all means are deemed to be acceptable. Violence breeds immorality, which in turn begets violence: this is the worst vicious circle imaginable.) Conformism and revolution are only acceptable if the issue is one of life and death: the former when no revolt is possible, the latter when only revolt may make survival possible.

All social reform brings about some moral reform. The converse is false: social change cannot be brought about through moral regeneration. True, every one of us can and should improve his morals, hence his social behavior, but there is only so much that the isolated individual can do to change society. When a moral problem is too big for the individual, he will tend not to think about it for feeling impotent to tackle it. Social issues are so big that they can only be tackled by group action. Think of mass murder, poverty, and environmental degradation. Every one of us ought to refrain from killing, exploiting and littering, but our individual contributions will not solve or even palliate any social problems.

It is not that we must wait for the New Jerusalem to be born until a new morality can be adopted, and in the meantime we may go on behaving badly. On the contrary, those who can glimpse a better morality than the one practiced by the wolves or the sheep around us, ought to start practicing it and ought to band together to work for a better social and moral order. In the process we shall become better individuals and shall set an example to others. Moralizing without doing is ineffective and hypocritical. But doing without regard to moral values can be harmful. If we are in a hurry to do good we may overlook the right. Therefore we should think twice before acting.

Our preference for social reform over social revolution is based on the right to life and on a prudential consideration, namely that, because a social revolution mobilizes huge masses of people, it can hardly be controlled and therefore it is bound to take unpredictable turns and to

have undesired consequences. For these moral and practical reasons political violence should only be resorted to when directed against a merciless power intent on slaughtering or starving an entire social group.

However, our preference for social reform over social revolution does not amount to endorsing the policy of piecemeal social engineering recommended by liberals from Bentham and Mill to Popper and Rawls. Since every human society is composed by persons with biological needs, who live in an environment and are organized into economic, political and cultural systems, any realistic social reform is to be global or systemic, not one-sided or partial. Moreover reforming a single aspect of social life may do more harm than good. For instance, introducing sanitation in a community without at the same time improving the economy may lead to starvation by way of overpopulation; and introducing high yield grains without at the same time reforming the system of land tenure will ruin the poorest peasants. Social reforms must be global and participatory as well as gradual and designed with the help of the best available knowledge if they are to be efficient and lasting.

To adopt a global or systemic view of social reform entails rejecting all of the policies of partial social development advocated nowadays. We reject pure environmentalism because the economy must be kept going lest we all starve; pure biologism because we cannot keep in good health without a clean environment and an adequate income; pure economicism because economic prosperity is worthless unless we enjoy good health and can make use of our income; pure politicism because freedom and participation are pointless if we are sick, destitute, or ignorant; and pure culturalism because the production and consumption of cultural goods take health, economic means, and a modicum of freedom and leisure.

To put it in positive terms: Progressive social reform, that is, social development, is at the same time environmental, biological, economic, political, and cultural: See Figure 11.1. In keeping with our pentagonal view of social development, we shall expound our social philosophy in five parts.

1. ENVIRONMENTAL

Ever since the Industrial Revolution started two centuries ago, and particularly since the beginning of WWII, industry has been plundering

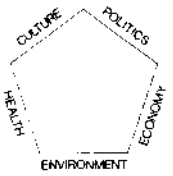


Fig. 11.1 The five aspects of social development: environmental, biological, economic, political, and cultural.

and contaminating our habitat. If the exploitation of the non-renewable resources were to continue at the present rate, very soon there would be no oil left, and many metals indispensable to industry would become extremely scarce (Brown *et al.* 1987). If toxic wastes, such as trace metals, continue to be dumped, our grandchildren will be malformed, severely sick, or short-lived (Nriagu & Pacyna 1988). Unless the deforestation and desertification processes are halted, half of the extant biospecies will become extinct before the 21st century is over (May 1988). This is where the *laissez-faire* — or rather *laissez-défaire* — environmental policy is leading: to the quick transformation of our planet into a place uninhabitable by human beings, or at least by civilized and healthy ones.

What is to be done? There are two possible solutions: Romantic conservationism or scientific environmental protection. The *romantic conservationists*, or radical "greens", believe that industry disturbs the ecological balance, which they regard as static in nature. Hence they preach the replacement of modern industry with traditional craftmanship, and consequently the return to primitive lifestyles. But their assumption that natural ecosystems stay in equilibrium is not true: ecosystems evolve, so there is no point in attempting to conserve them. (See Küpper 1982.) And deindustrialization would cause more than the destruction of civilization: it would bring about a hecatomb. (Think how long you could survive without any industrial goods or services.) Their romantic project is unfeasible for it would never win public support, particularly in the underdeveloped countries, where the problem is not overindustrialization but its opposite. Nor is it morally justifiable, because it demands sacrifice without compensation — except for the bald eagle and the piranha. Luckily there is a rational alternative, namely scientific environmental protection.

The *scientific environmentalist's* diagnosis of the environmental crisis

is roughly the same as that of his romantic fellow environmentalist. We are causing the degradation of the biosphere, wiping out numerous biospecies, and soiling our own nest to the point of having turned our species into a highly endangered one. Some of us are consuming far beyond our means while others are reproducing beyond our planet's carrying capacity. However, the scientific environmentalist's prescription is not to reject technology and turn the social clock back, but to adapt technology to our real needs and plan social development on a world scale so as to protect our habitat. Let us use our gray matter to protect our green world.

The idea of the scientific environmentalist is to combine the scientific and global management of the biosphere with the social reforms necessary to ensure the success of environmental management. The reasons for favoring such a combination are that (*a*) purely environmental protection measures might only worsen the poverty that afflicts at least four-fifths of the world population, and (*b*) social reforms unaccompanied by an energetic world-wide environmental protection action would end up in a good society of the dead.

In other words, the goal of the scientific or green-gray environmentalist is to eliminate the conflict between development and environmental protection which has characterized the socialist as well as the capitalist societies heretofore. Shorter: the proposal is to adopt what may be called *ecosociodevelopment*, i.e. integral (not just economic, cultural or political) development together with environmental management. (See e.g. Thibodeau & Field Eds. 1984, WCED 1987, Bunge 1989.) This policy opposes both of the rival slogans, *laissez faire la nature* and *laissez faire l'industrie*. It involves transforming (not conserving) nature so that it may coexist with civilization, and transforming (not destroying) the latter so that it may last. See Figure 11.2.

Designing and implementing ecosociodevelopment involves much more than such purely environmental protection measures as rational waste management, reforestation, and desert reclamation. To be effective and lasting, the reform must cover nearly every aspect of social life everywhere and it must win the support of all but those who are sick with economic or political greed. The reform must include

(1) a gradual but eventually total nuclear, chemical and biological disarmament, because the arms race is depleting the non-renewable resources, it involves highly polluting industries, and it risks culminating in a nuclear war followed by the nuclear winter, which could wipe out all life on earth;

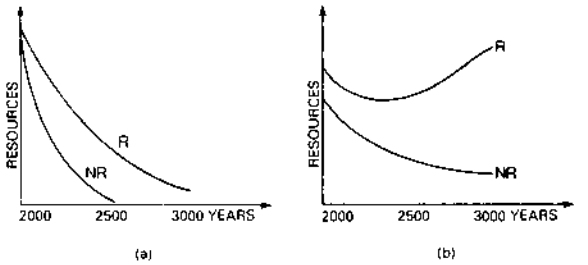


Fig. 11.2. (*a*) Depletion of renewable (*R*) and non-renewable (*NR*) resources if they continue to be exploited at the present rate. (*b*) Rational management of world resources: increase of renewable (*R*) resources up to the necessary level, and decrease of the rate of consumption of non-renewable resources (*NR*) as an effect of restrictions on exploitation, substitution of fission energy for fossil fuels, wood and plastics for metals, recycling, etc. Arbitrary scales. (Redrawn from Bunge 1989.)

(2) the replacement of international confrontation with negotiation and cooperation regulated by the United Nations and, eventually, by a world government, to make war not just unlawful but also unprofitable;

(3) the establishment of an international environmental management agency with authority to prevent and remedy environmental catastrophes the world over;

(4) the gradual phasing out of all the nuclear energy plants, until we discover how to dispose of nuclear wastes and how to prevent the plutonium generated in some of them from being employed to manufacture nuclear bombs;

(5) massive investment in research, by international teams, into alternative energy sources such as fusion;

(6) the redesign of all machines and industrial processes with the aims of (*a*) increasing their efficiency, (*b*) reducing the production of pollutants, and (*c*) treating (recycling or breaking down) the waste, wherever possible in place;

(7) upgrading phytotechnology and agricultural engineering to improve agricultural yields without eroding or otherwise impoverishing the soil — or the farmers;

(8) a strict control of the use of artificial fertilizers, insecticides, herbicides and defoliants;

(9) phasing out the use of oil as a fuel, allowing it to be used exclusively by the petrochemical industry for the manufacture of plastics, synthetic fibres, and the like;

(10) internationalizing the non-renewable resources and placing them under an international agency empowered to lease them to private firms or cooperatives bound to observe the exploitation quotas and the efficiency norms set up by the agency;

(11) the extension and improvement of the mass transportation systems, with a view to reducing drastically the number of cars — some of the worst environmental offenders;

(12) adapting technology and industry to meeting only the basic needs and legitimate aspirations of people;

(13) the banning of all publicity aimed solely at increasing unnecessary consumption;

(14) upgrading the educational system on all levels and, in particular, intensifying ecological education and the education of consumer habits;

(15) popularizing family planning in order to decrease the rate of exploitation of natural resources — and of course in order to improve the general quality of life.

A peaceful world-wide social reform so radical and many-sided as the one sketched above cannot be achieved overnight and without a concomitant change in value systems and morals. It will have to be accompanied by the adoption of a value system and a morality in harmony with ecosociodevelopment. We submit that the views on values and morals proposed in this book are the suitable ones, because they are based on the recognition of the basic needs and legitimate aspirations of all human beings. Indeed, if life is the supreme value, enjoying it the supreme right, and helping others live the supreme duty, it stands to reason that we must start by securing a suitable place to live in. And if this place is to be kept inhabitable, we must redesign social behavior accordingly, for managing anything, in particular environmental items, boils down to managing people. (Recall Ch. 10, Sect. 2.5.)

The very idea of ecosociodevelopment will be found revolting by all the moral philosophers who preach the sanctity of self-interest: moral nihilists, rational egoists, libertarians, contractualists, and negative utilitarians (Ch. 7, Sect. 2). It will also be rejected by the political scientists and philosophers who believe that liberty — in particular the liberty of doing as we please with nature — comes before everything else, even before welfare. Likewise it would be rejected by the economists who equate development with economic growth, wax enthusiastic over the power of technology-based industry to subdue nature, and

oppose any attempts to limit industrial growth and adjust technology and industry to the basic human needs and legitimate aspirations. After all, we have come this far in the process of destroying our habitat by taking advantage of the alleged boundless freedom to exploit the natural resources. It only takes the *modus tollens* to realize that, given the environmental mess we are in, we must reject the premise that we are free to go on plundering and soiling our habitat. Since such freedom has got to be curtailed, it had better be done rationally, i.e. as part of a comprehensive plan to save the Earth from and for ourselves and our offspring.

Some of those who believe that everyone has the right to pursue what he takes to be the good life may suspect that the ecosociodevelopment we favor involves adopting an ascetic lifestyle. Not so. Rather, unless we replace the current prodigality of the few with the frugality of all we shall condemn our posterity to monasticism and eventual extinction. Far from preaching the joyless life, we repeat our slogan *Enjoy life and help live*, and add the following unavoidable platitudes: (*a*) at present most people do not have the means to enjoy life, and many of those who do have them mistake the good life for the ability to buy whatever they fancy; (*b*) unless we alter some of our values and learn to administer wisely our resources, we shall rob our offspring of their inheritance.

Even some of those who agree that something ought to be done to save our planet may believe that nothing can be done: that "people" will continue to squander our common heritage until it will be too late to save what may be left of it. However, the recent agreements on nuclear arms limitation, the ban on the production of sprays and plastics that are destroying the ozone layer, the successful vigilance of pollution levels in the Mediterranean and in the Rhine, and the internationalization of Antarctica, show that it is possible to reach consensus on certain environmental measures. Every large scale man-made environmental catastrophe heightens the public awareness and puts pressure on governments and industries: though admittedly slowly, we are making progress.

Still, it may be objected that ecosociodevelopment on a planetary scale is unfeasible as long as the world remains divided into antagonistic blocs, and every society is split into mutually opposed classes. But this is precisely the point: that in the long run the environmental crisis is far more serious than any international or social conflict for, without

breathable air, drinkable water, and uncontaminated food in sufficient quantities, we will not survive and consequently there will not even be political or economic issues to fight over. Besides, pollution and the depletion of non-renewable resources are equally serious in the socialist and capitalist blocs. And sometimes rival social groups, such as the workers and managers of polluting industrial plants, or the slash-and-burn farmers and ranchers in the Amazon, disagree on everything except the disregard for the environment and consequently for the future. To sum up, the environmental issue is prior to every other contemporary issue except for its twin, the nuclear arms race. However, neither of these two monsters can be tamed without radical world-wide social reforms, for the management of any resource boils down to the management of people.

To conclude, we must protect our planet, but not at the cost of social development. The alternative is neither environmental protection nor social development, but either a continuation of the present course towards ultimate environmental catastrophe, or the improvement in the quality of life for everyone in and through ecosociodevelopment. The order is tall but the stakes are high. (See the Declaration of The Hague, of March 11, 1989.)

2. BIOLOGICAL

Most moral philosophers interested in bioethics have focused their attention on such emotionally and ideologically charged issues as abortion, euthanasia, and suicide. Though genuine, these problems affect only a small fraction of humankind. The most serious bioethical problems are those of starvation, malnutrition, sickness, and child neglect, for they affect billions of people and are likely to grow before they are solved. We submit that the root causes of these problems are unbridled population growth, environmental degradation, economic inequality, political power exerted to maintain inequality, and military expenditures. Wherever the population is commensurate with the resources, wealth is distributed equitably, and the government protects the weak and the environment, those problems hardly arise. Let us start with overpopulation.

The world population has increased to about ten times its value at the beginning of modern times. If the present growth rate of 1.7 per cent per year were to remain constant, the world population could

double in less than thirty years — unless it were to be reduced by famines, plagues, and wars. Extrapolating present trends, demographers project that around the year 2010 India's population will be stabilized at 1,700 million, Nigeria at 530, Indonesia at 370, and Pakistan, Bangladesh and Brazil at 300 million each. (See e.g. Brown *et al.* 1987.) Reproductive success breeds population excess, which in turn begets misery and worse.

The effects of overpopulation, particularly when accompanied by economic inequality, are poverty, unemployment, subemployment, rapid environmental degradation, intensification of conflicts over the control of natural resources, and the growth of governments, which are increasingly unable or unwilling to provide social services, in particular health care and education. In the so-called developing countries — which are actually declining — roughly half of the population is under 15 years of age, most children do not get appropriate nourishment and health care, they cannot complete their elementary education, are often unwanted — hence neglected or even homeless — and when they reach maturity they seldom find jobs. In short, as the world population continues to grow, the quality of life of most people goes down, and the prospects of our posterity grow bleaker.

Thousands of years ago, when there were few people and their life expectancy was short, promoting human fertility was the prudent and moral thing to do. In the present world, given that overpopulation is a root of so much evil, it is irrational and perverse to preach reproductive freedom. It is irrational because our ecological niche is nearly filled to capacity, and perverse because it condemns millions of children to neglect, hunger, early death, and ignorance, and hundreds of millions of adults to squalor and despair. Reproduction is no longer a human right: human fertility must be controlled in the interest of the survival of humankind. (Note the paradox: To remain fit we must check our Darwinian fitness.)

There are three ways of checking population growth: letting pathogens take their toll, waging genocidal wars, and birth control. The Black Death of the 14th century exemplifies the first way. It killed an estimated 25 million people — one-fourth of the European population — and in some countries it mowed down up to three-quarters of the population. But do not count on epidemics to solve any problems. The influenza epidemics of 1918 to 1919, which made almost as many victims as the plague in the 14th century, only added to the misery caused by the world war that preceded it. As for genocide, it was more

effective in ancient times, when most ethnic groups were comparatively small.

The only rational way to control population growth is birth control. This may be done in three ways: (*a*) by infanticide and abortion, (*b*) by raising the standard of living and the level of education, and (*c*) by adopting and enforcing strict planned parenthood legislation. Infanticide is of course immoral, and abortion is traumatic on top of being unnecessary given the availability of contraceptive methods. The second method is indirect and it has worked well in most industrialized countries, which have succeeded in reducing their birth rates; but of course it is inapplicable in poor societies, which are the most numerous. These should resort to the third or direct method, namely compulsory family planning. The only objection to this method is theological and even so not cogent because, unlike the case of abortion, no embryonic human life is at stake when fertilization is prevented. Preaching fertility to people who do not earn enough to feed themselves is downright immoral.

Let us wrestle briefly with a handful of other bioethical issues which, though serious, pale by comparison with that of overpopulation. Our first question is whether everyone is entitled to state-supported health care. Our answer is affirmative because (*a*) everyone has the right to live, (*b*) only the state can embark on massive health care programs such as the construction of sewers and compulsory inoculation, and (*c*) wherever there are disadvantaged people, only a national health program can take care of their health. Right-wingers oppose such programs in the name of liberty. (Recall Ch. 7, Sect. 2.3.) But minimally intelligent people support them because they understand that their own health is at stake: it is impossible to enjoy good health when surrounded by sick people. In short, prudence and morals speak in favor of state-supported health care.

Our second question is whether the state has the right to protect its subjects from themselves. Mill and other libertarians have denied that it has this right, and have defended everyone's right to drug, drink, or smoke himself to death, or even to mutilate himself. Against this claim it may be objected that (*a*) if we wish virtue to prevail we must not set the example of vice; (*b*) certain vices, particularly the consumption of alcohol and hard drugs, induce antisocial, often criminal, behavior; (*c*) the treatment of the medical and social problems caused by indulgence in such vices is usually entrusted to public institutions, particularly

hospitals and jails, hence at the public's expense; and (*d*) the production of the means required to satisfy these vices places an unnecessary burden on the soil. The only problems, then, are of a practical nature, namely how best to prevent and cure drug addiction. The informed opinion is that education is the best prevention, and that addiction can be treated successfully by a combination of medication with behavior therapy. Cut down the demand, and the offer will decline automatically together with the price. If on the other hand all the effort is directed against drug production and trade, the net effect is that the drug business is controlled by organized crime. In conclusion, the state has the right and the duty to protect the individual from himself, for by so doing it protects relatives, neighbors, and the population at large.

Our third question concerns genetic engineering. This technology raises at least two bioethical problems: the production of new biospecies that might endanger human health or the environment, and the production to specification of new varieties of human being. The former can be avoided by adopting and enforcing restrictions similar to those that govern the manufacture of new pharmaceutical products. The opposition to the production of new biospecies or varieties, such as frost-resistant or drought-resistant crops, is just a variety of fanaticism. If such fanatics had had their say fifteen millennia ago, when artificial selection was first practiced, we would still be food gatherers rather than producers.

As for human genetic engineering, so far its aim has been to prevent or cure hereditary diseases, and this is all to the good. But there is also the possibility that human beings may be manufactured almost to order, either to increase uniformity or to produce special varieties, e.g. of obedient and dumb manual workers or soldiers, as envisaged by Aldous Huxley in *Brave New World*. Such technology would be morally and practicable undesirable. Morally because it would enhance social inequalities to benefit the privileged. And it would be practically undesirable because we ought to let chance play its role in shaping populations where every desirable trait be distributed normally, i.e. on a bell-shaped cure. Human genetic engineering is desirable only to reduce the number of severely handicapped individuals. Our present degree of social and moral development does not warrant looking indifferently at the prospect of using genetics to skew the normal distribution of, say, physical strength or intelligence.

Our last question concerns animal rights: Should we treat other

animals on a par with humans, particularly with regard to inflicting pain on them? There are moral and practical reasons for sharing some, though not all, of the tenets of the animal rights movement (for which see Singer 1975). The moral reasons are that (*a*) most of the animals we have commerce with are capable of suffering and (*b*) cruelty to animals makes us more inclined to be cruel to fellow human beings: being kind to animals is part of our moral education — as long as it is not accompanied by indifference to human suffering.

However, the practical reasons for refraining from harming, and particularly killing, other animals are perhaps even more compelling than the moral reason. One is that, as all ecologists know, human survival depends on that of millions of other biospecies, every one of which participates in some food-web or other. Another is that raising cattle and fowl for meat is economic lunacy. Remember that the production of 1 kg of beef protein requires the expenditure of about 10 kg of protein contained in hay, grain, soya beans, fishmeal, etc. We need meat substitutes, and food technology will invent them if demand for them increases. As for milk and eggs, genetic engineering can prevent the birth of more males of the domestic species than are necessary to perpetuate these species.

As for animal experimentation, we cannot endorse the view of the so-called animal liberation movement. To raid biological laboratories and set the experimental animals "free", i.e. at the mercy of an environment alien to them, is insane. Biological experimentation is indispensable not only to increase scientific knowledge but also to improve human health and to improve the welfare of domestic animals. (The latter is, precisely, a goal of applied experimental ethology.) What we must do is to refrain from causing unnecessary pain and from performing mindless, hence useless, experiments just "to see what happens" when harmful stimuli are applied to an animal. Such precautions should be taken particularly when using human subjects.

Finally, the norm that we should be kind to animals does not entail that we should not interfere with wildlife. On the contrary, we must regard wildlife management as part of environmental management, because some wild biopopulations are about to become extinct, while others are threatened by overpopulation. The first problem has been solved successfully in the case of a few species that have captured the imagination of conservationists. The overpopulation problem has traditionally been solved by trappers and hunters, but this solution is neither rational (because it may lead to extinction) nor humane. A more

humane method is contraception, which has been employed to check the pigeon population in cities. (More on bioethics in Ch. 8, Sect. 2.2.)

3. ECONOMIC

Our economic philosophy rests on the ethical principle that everyone has the right to meet his basic needs and fulfil his legitimate aspirations, as well as the duty to help others exercise the same right (Ch. 4, Sect. 1). Anyone who admits this principle is committed to adopting

NORM 11.1 The one and only morally legitimate function of the economy is to help people meet their basic needs and fulfil their legitimate aspirations.

This rule is not as simple as it may look. To begin with, it entails a condemnation of human exploitation and of the exclusive pursuit of profit. Indeed, it suggests advocating distributive or social justice of some kind. Moreover the norm leads to condemning all wasteful economic activities, as well as those which involve the production of purely destructive or even merely superfluous commodities. Finally, the norm renders it nonsensical to claim that the economy is in good shape when there are destitute people, or that it is in bad shape when there are none.

Let us glance at some of the problems posed by the adoption of Norm 11.1. A first point to be noted is that mainstream economic theory will not help implement the norm for the following reasons. Firstly, that theory is immoral for postulating that economic behavior is, or ought to be, "rational" in the sense of maximizing the expected utility of the individual agent regardless of the well-being of others. (For an indictment of egoistic views see Ch. 7, Sect. 2.) Besides being immoral the "rationality" (selfishness) postulate is imprudent, because a society of egoists would soon disintegrate unless held together by violence or deceit, neither of which is moral. Secondly, mainstream economics takes for granted that individuals have the right to own any natural resources. This is immoral because there is only so much of any natural resource, and not enough for everyone to become a land-owner, mine-owner, or forest-owner. Thirdly, the theory presupposes that whoever has the wherewithal is entitled to exploit labor. For these reasons we cannot count on mainstream economic theory to design a just economic theory. (Nor does the theory describe adequately any of the existing social orders: Recall Vol. 7, Ch. 4, Sect. 5.2.)

A second point concerns the myth, shared by orthodox Marxists as

well as by apologists for capitalism, of indefinite economic growth. This assumes either that the world's resources are inexhaustible, which is false, or that it does not matter if we disinherit our posterity through the overexploitation of the environment, which is immoral. Economic growth must be limited if we are to bequeath a livable planet to our descendents: Recall Sect. 1. But it must not be limited uniformly throughout the world, for at present most people in the world are poor. It would be immoral to ask the poor to refrain from aiming at economic development. Complying with Norm 11.1 requires aiming at a world-wide economic level situated between subsistence and abundance.

Now, classical capitalism is inherently expansive: it conquers new internal and foreign markets supplying new consumers and offering new investment opportunities. The reason for this expansiveness is that, through the use of continually renewing technologies and the abuse of the environment, a capitalist economy increases its productivity and accumulates capital. Unless the excess commodities find consumers, and the excess capital can be invested, the rate of profit is bound to decrease, and unemployment to increase. In turn, the decline in the rate of profit discourages investment in industry, which consequently becomes technologically obsolete and thus less productive; and unemployment shrinks the internal market and forces the government to raise taxes in order to maintain social services. The overall outcome is at first stagnation, later on decline. Such decay is unavoidable if half of the engineers, and half of the richest industrial companies in a country, are devoted to the development and production of weapons: See Bellon & Niosi (1988).

Since economic expansion is not intrinsically valuable, but should only be a means to meet public demands, and it should be controlled to prevent the degradation of the environment, classical capitalism is not the ticket. Nor is it classical or statist socialism, because it is inefficient and authoritarian. It is inefficient because it suffocates individual initiative, dilutes personal responsibility, and underrates incentive; and it is authoritarian, hence alienating, for involving the subordination of the economy to the party. The consequences are well known: shortage, waste, low quality, worker dissatisfaction, and parasitism.

If we wish to build a just and viable economy we must move beyond both classical capitalism and classical socialism, to a sort of synthesis of the two without their disadvantages. Actually the convergence of capitalism and socialism is already under way: witness welfare capital-

ism and the "new capitalism" on the one hand, and cooperativism and the *perestroika* (restructuring) of statist socialism on the other. (See e.g. Nienhaus 1984, Halal 1986, Stojanović 1988.) In fact, welfare capitalism redistributes part of the national income, and cooperativism eliminates exploitation altogether; the "new capitalism" gives more of a say to workers and consumers, and *perestroika* is an essay in market socialism.

To be sure, we are only at the beginning of the process, and there are many hurdles to be overcome. The welfare (actually relief) state is in trouble in some countries, not only because of the hostility of short-sighted pro-capitalists but also because of the military build-up, high unemployment rates and the heavy overhead costs of relief administration, not to mention corruption. As for cooperatives, so far they have operated either in a hostile environment, or under the thumb of politicians and with little technological (particularly managerial) inputs. The "new capitalism" has yet to implement a more intensive participation of its work force and consumers, and market socialism calls for the dismantling of unprofitable enterprises and a vigorous shake-up of personnel. And all, whether reformed capitalists or reformed socialists, have got to clean up the fouled environment and put an end to international confrontation.

The solution to these difficulties lies in furthering the convergence process, building economies which operate on the principle of competitive cooperation and subject to Norm 11.1. We submit that, from a practical as well as from a moral point of view, the way to achieve this goal is to combine cooperative ownership with technodemocratic management and competition, the whole regulated (but not ruled) by the state to safeguard the public interest. Let us see why.

Cooperative ownership has, at least in theory, the following advantages over alternative types of ownership: equitable distribution of wealth (social justice), personal concern for the success of the enterprise (hence efficiency), encouragement of individual initiative (hence openness to innovation), democratic control of management (hence work satisfaction), decrease in conflict intensity (hence decreased disruption), and personal satisfaction derived from working in a friendly environment. (See e.g. Dahl 1985.)

The advantages of competition — challenge, productivity, concern for quality, openness to innovation, and minimization of parasitism — are secured by allowing for the multiplication of cooperatives in nearly

every sector of the economy. However, since unbridled competition can be destructive of both firms and the environment, it should be controlled by a neutral party, the technodemocratic state. (It goes without saying that the state is also necessary to provide essential social services that no cooperative and no corporation can provide to every person that needs them.) Without such neutral control serious inequalities may develop — e.g. between the returns of a bakery and those of an academic publishing firm. Such inequalities in profits — though not those occurring within a given sector — may be diminished by taxation and redistribution of the tax revenues.

The state would intervene in the economy only to have Norm 11.1 observed. In particular it would intervene to (*a*) support the production and commercialization of low return but socially useful goods and services, (*b*) prevent the formation of monopolies and monopsonies, except in the military sector; (*c*) prevent the production of dangerous things, such as hard drugs and handguns, and the offer of dangerous services, such as medical quackery and mercenary soldiering; (*d*) enforce tight controls on the exploitation of natural resources; and (*e*) monopolize the manufacture and use of weapons. The market resulting from such state intervention in the operation of cooperative enterprises would combine the desirable traits of capitalism and socialism. In fact it would meet the basic needs and legitimate aspirations of everyone, it would ensure efficiency in the allocation of resources (e.g. by leasing land tracts to the most productive cooperatives), encourage the production of a variety of high quality commodities, and make ample room for initiative and innovation.

Table 11.1 exhibits some of the advantages and disadvantages of the various possible types of industrial economy. The most obvious virtue of competitive cooperativism *cum* flexible overall planning is that it combines social justice with democracy. Aristotle, who wrote that "poverty is the parent of revolution and crime" (*Politics* Bk. II, Ch. 6, 1265), might have approved of it. Even Smith, who deplored that "Wherever there is great poverty, there is great inequality" (1776 Bk. V, Ch. I, Pt. II), might have preferred it to corporate capitalism, with its tendency to monopoly, which he condemned for killing free enterprise. And it would certainly have met with the approval of Mill (1852 Bk. II, Ch. I, Sect. 3, and Bk. IV, Ch. VII, Sect. 6).

Competitive cooperativism is part of integral or social democracy but it does not involve radical egalitarianism. On the contrary, it

TABLE 11.1. Economic orders.

Type of economy	Efficiency	Fairness to worker	Fairness to consumer	Worker incentive	Management incentive	Worker satisfaction	Management satisfaction
Classical capitalism	½	0	½	½	1	0	1
Welfare capitalism	½	½	½	½	1	½	½
Welfare capitalism *cum* coordination	1	½	½	½	½	½	1
Classical (statist) socialism	0	½	0	½	½	½	½
Competitive cooperativism	½	1	½	1	1	1	1
Competitive cooperativism *cum* coordination	1	1	1	1	1	1	1

involves income differentials adjusted to needs and deserts: i.e., it goes hand in hand with qualified egalitarianism (Ch. 6, Sec. 2.2), according to which persons with similar merits deserve to occupy the same rank. This form of egalitarianism involves (*a*) the recognition of merit, as well as of the special responsibilities dependent on special abilities, and (*b*) the principle that the public is best served by competent and satisfied workers, managers, and public servants. In short, competitive cooperativism is meritocratic: it admits all and only the inequalities likely to favor the majority. By the same token it admits neither privileges, i.e. rights not earned ("entitlements"), nor underprivileges, i.e. burdens not deserved. Which takes us to the heart of the matter, namely social justice.

The scholarly literature on social or distributive justice deals almost exclusively with the distribution of benefits, in particular goods such as money and services such as health care. But in real life we judge justice and injustice not only in terms of benefits received but also in terms of services rendered. Shorter: Social justice is a matter of sharing benefits and burdens. In a just society benefits and burdens are distributed equitably, i.e. everyone's burden is balanced by his benefit. More precisely, in line with Definition 6.5 we propose

DEFINITION 11.1 A society is *internally just* $=_{df}$ every member of the society

(i) receives what she requires to meet her basic needs;

(ii) can earn, by doing socially useful work, what she requires to satisfy her legitimate aspirations;

(iii) fulfils the obligations assigned her by her family, workplace, and social circle(s) — assignments which, in the case of adults, are made by mutual agreement;

(iv) is free to satisfy her legitimate aspirations and to pursue those inclinations that are not antisocial;

(v) is free to work for points (i) to (iv) above, by herself or in association with others.

Note the following points. Firstly, social justice is a systemic property and, more particularly, a social one. But of course it emerges from the interplay of individuals. Prosocial behavior promotes social justice while antisocial behavior thwarts it. Secondly, a society with a subsistence economy, or one with an industrial economy that tolerates unemployment, is not socially just even if it provides a subsistence income, because such a society fails to satisfy conditions (ii) and (iv). Thirdly, according to clause (iii) social justice involves democracy in the

workplace, i.e. self-management. Fourthly, clause (iv) protects the right to pursue hobbies and to engage in idiosyncratic behavior as long as neither harms others. Fifthly, clause (v) makes it plain that social justice cannot be maintained without a modicum of freedom, in particular freedom of speech and association.

The above definition is ineffective unless supplemented by a precise formula for the distribution of income. We propose the one contained in

NORM 11.2 The just income of an individual equals the cost N of meeting her basic needs plus the market value W of the socially useful work that she performs: $I = N + W$.

In other words, in a just society you receive what you need to survive plus what you earn by honest means. The formula encourages socially useful behavior and discourages antisocial behavior. It combines welfarism with meritocracy. Unlike the fixed wages option, it rewards skill and effort. And, unlike the "what you can earn" option, it makes provision for the basic needs of the people who cannot work. The formula quantitates the principle: *To each according to her needs and deeds, from each according to her abilities and responsibilities.*

However, our formula has a catch: Who determines what "socially useful work" is? Are the activities of punk noisicians, athletes and vulgar TV comedians socially useful just because there is a demand for them? We suggest that this problem will be solved in practice, though not government decree, as culture evolves. Vulgar entertainment is part of a commercialized culture and it should wane along with the rise in cultural level made possible by social justice. More in Sect. 5.

Definition 11.1 concerns the internal social order not the international one. Now, certain nations, notably Great Britain, France, and the U.S.A., have attained a certain level of social justice partly at the expense of the Third World, the natural and human resources of which they have exploited exclusively in their own benefit. Therefore we also need

DEFINITION 11.2 (i) A society is *externally just* if and only if it does not hinder the development of other societies. (ii) A society is *just* if and only if it is both internally and externally just.

Internal (or social) and external (or international) justice are desirable not only for moral reasons but also prudential ones, namely because they are the only rational and lasting means of preventing civil strife and international conflict.

Finally, what about property rights in a just society? This is a legal

problem not a moral one because, in order to satisfy our basic needs and legitimate aspirations, we only have to have *access* to certain things without necessarily owning them. We do not need to own a person in order to marry her, a mountain in order to enjoy its view, a school in order to learn, or a bakery in order to eat bread. Property implies possibility of use, but the converse is false. Moreover there are well know objections to the private ownership of factors of production: (*a*) it causes the division of society into the propertied and the rest; (*b*) it jeopardizes the right to life of the propertyless; and (*c*) it is the major cause of uncounted conflicts and crimes, from litigation to war. For these reasons we propose a principle of restricted property rights:

NORM 11.3 In a just society everyone may own whatever she requires to meet her basic needs and legitimate aspirations, as well of those of her dependents, and nobody may own more than this.

4. POLITICAL

In any society politics is action aimed at influencing or controlling the specific functions of the state — municipal, national, or other. Remember that a specific function of a thing of a given kind is a process that only things of that kind can go through. (See Vol. 4, Definition 3.8.) For instance justice, public security, defense, and the redistribution of national income are specific functions of the state, because no other organization can perform them. On the other hand it is debatable whether the execution of public works and the management of public transportation, or even public education and the mail service, are specific functions of the state. Indeed, since they can also be performed by business corporations or by cooperatives, it is up to the citizenry to favor one or the other form of management of such public services. Many debates in contemporary political and legal philosophy are precisely about this point.

Political and legal philosophy are centrally concerned with the *legitimate* functions of the state, whether or not they are specific, as well as with the rights and duties, political or otherwise, of the individual, in particular the citizen. Unlike political science and jurisprudence, which are mainly descriptive and explanatory, political philosophy is mainly evaluative — in particular critical — and normative. It is con-

cerned with what is good or bad, right or wrong in the polity. For example, whereas a political scientist's major interest may be to ascertain the efficiency and stability of a political regime, a political philosopher will be interested mainly in ascertaining whether that regime facilitates the pursuit of well-being, or whether certain reforms would improve welfare.

We can only touch on a handful of topics in political philosophy, starting with the legitimate functions of government. A good government ought to make it possible for everyone to practice our supreme moral norm, i.e. to enjoy life and help live. (Note the cautious 'possible'. Well-being must be felt, and solidarity practiced: neither can be dispensed.) Needless to say, none of the existing governments complies fully with this condition. Worse, most of them oppress and milk their subjects, legalize exploitation (in some cases on an international scale), take part in the arms race, and do nothing to protect the environment. Even the relief state, though by far preferable to its predecessor, is imperfect for it only compensates to some extent for social injustice. Besides, by interposing a bureaucrat between any two individuals, it shrinks personal responsibility and undermines mutual help, which, jointly with participation, constitutes the mortar that holds social groups together. Still, the welfare (or rather relief) state does go some way in the right direction. Hence any attempt to dismantle it without solving the social problems that prompted its creation is morally objectionable.

We agree with Aristotle's view that "a state exists for the sake of a good life" (*Politics* Bk. III, Ch. 9, 1279). Hence with Jefferson (1809) when he wrote that "The care of human life and happiness, and not their destruction, is the first and only legitimate object of good government". More precisely, we posit

NORM 11.4 The legitimate functions of the state are (i) to protect the basic human rights and enforce the corresponding duties (Ch. 4, Sect. 1.2); (ii) to facilitate the fulfilment of everyone's legitimate aspirations (Ch. 1, Sect. 3.1); (iii) to facilitate and coordinate the activities of the various non-governmental economic and cultural organizations that operate in the public interest; (iv) to manage the public goods; and (v) to deal and cooperate with other governments.

Probably the most problematic concept in this norm is that of a public good. Let us define it before discussing it:

DEFINITION 11.3 A *public good* is a thing or service that

(i) is necessary for the welfare of the members of a social group, possibly for all the members of society;

(ii) is accessible to all the members of society — though not necessarily for free; and

(iii) cannot be lawfully appropriated by any individual or group other than the organization that provides it.

Note that this definition makes no reference to ownership. In particular it does not contain the liberal view that all public goods should be owned by the state: this is a thesis, hence it ought not to be part of a definition. This thesis has been rejected by the anarchists (e.g. Kropotkin 1902, Taylor 1976), who claim that voluntary cooperation can provide the same public goods without any need for government — which is probably true for a Neolithic village, but certainly false for any modern society. At the other extreme, contemporary conservatives claim that all public goods, with the exception of the courts of law, the internal security forces and defense, can be provided by business corporations to the tax-payer's advantage — provided of course he can afford to pay for them. But any businessman and any social scientist knows that the market cannot supply such goods as environmental protection, city planning, traffic safety, consumer protection, public health, compulsory elementary education, and much of science, the humanities, or the arts. Only the state or state-supported cooperatives can provide such services because, though necessary for the welfare of all, they are not marketable: they happen to be *public* goods provided for public service not private profit. Consequently to preach the privatization of all or nearly all public goods is no less than preaching the dismantling of civilization.

The variety and quantity of public goods have increased enormously in all industrial societies in the course of this century. One result has been an unprecedented increase in welfare, another a frightening increase in government size. Granting that Big Government is wasteful, suffocates initiative, threatens freedom, leads to abdicating personal responsibility, and substitutes charity for solidarity, how can we shrink it without destroying civilization? The problem of government size may be analyzed into the subproblems of efficiency and morality. The efficiency problem is this. Who can manage most efficiently public services: the state, business corporations, or cooperatives? Experience shows that in some cases (e.g. European railway companies) the state

does a superb job; in others (e.g. North American telephone companies) private business provides good service; and in still others (e.g. Argentinian microbus companies) cooperatives are remarkably efficient. Since the type of ownership seems to make no essential difference to efficiency, we are left with the moral problem.

The moral aspect of the question is this. Which form of public goods ownership harmonizes best with the ideal of social justice? Obviously private ownership does not, for a business corporation must refuse to serve anyone unable to pay for its services. The same holds for a cooperative, but not for the state. Were it not for the much-maligned welfare state, a large fraction of the population would have no access at all to health care, education, and other services. Moreover, given that some public services have got to be centralized, their privatization would condone business oligopolies or even monopolies, and therefore abusive price fixing. Consequently large sections of society would be deprived of public services — which, by definition, would cease to be public. Hence it is immoral to preach such privatization as a matter of principle. Does this commit us to favoring the state monopoly of all public services? Not at all.

Having submitted (Sect. 3) that cooperative ownership is the form of ownership best suited to a just society, we must favor *decentralizing the state and turning most of the public services over to cooperatives.* However, the state should retain the control of the quality of the services offered by the cooperatives, and it should use part of its revenues to correct pronounced inequalities between cooperatives as well as between regions. If society is to advance, the state cannot wither away: it must retain some traditional functions, such as justice; give up others, such as public transportation; and take on new ones, such as the management (though not the direct exploitation) of all the non-renewable resources, such as land and mineral deposits.

How about the poor, who might be unable to pay for the public services provided by cooperatives? This question presupposes that there will be poor people in a just society. But this is precisely the point: in a just society there *are* no poor people, except perhaps by choice. Consequently there is no need for state hand-outs except in cases of family tragedy or natural disaster.

In a just society there is no need for unemployment compensation because there is full employment. There is no need for state or private charity because everyone earns his living and that of his dependents.

The state bureaucracy is small because there is little need for public relief and most public services are provided by cooperatives. There is no standing army because international cooperation has been substituted for international conflict. Consequently the taxes are comparatively low and in any case they all go to pay for useful services. Finally in a just society there is no parasitism of the very poor or the very rich because there are neither and because, if an able-bodied adult were to refuse to work for a living, he would get barely enough to survive (Norm 11.2).

The political order accompanying a just economic order cannot be other than an integral technodemocracy (Ch. 10, Sect. 2.5). Democracy must be integral or social, not just political, economic or cultural, if everyone is to have an equal opportunity of getting access to all the resources of society. (Only the active partners in an organization participate in its management; the sleeping partners can be deceived or squeezed out. In a representative democracy the ordinary citizen is a sleeping partner.) And democracy must be technological, not amateur, if the management of the natural, economic and cultural resources is to be competent. (Note the difference between technocracy and technodemocracy: the former is the rule of experts, the latter that of the people in consultation with experts. Technocracy has never been tried, although bureaucrats are often called 'technocrats'. On the other hand technodemocracy has been tried on a small local scale and it has proved successful.)

Bureaucrats and technologists may dislike public participation in the management of the *res publica* because it ties their hands and wastes their time. But public participation is an effective deterrent of waste and corruption as well as a reminder to the public servant that he is supposed to be in the service of the people. Besides, the users and pecuniary supporters of a public service know from personal experience what its shortcomings are and they may come up with imaginative proposals undreamt of by indifferent key punchers. Finally, participation enhances responsibility, whereas marginality causes alienation — apathy, irresponsibility, despondency, or even rebellion.

What is the role of liberty in an integral democracy? It depends on the kind of liberty. Clearly, there must be freedom to work, but not to exploit; to pursue one's interests, but not at the expense of others; to indulge in harmless pleasure, but not in destructive or contagious vice; to compete, but not to destroy other people; to learn and teach, but not

to force others to accept any beliefs; to run for elective office, but not to deceive one's constituency — and so on. The keys to integral democracy are equality, solidarity and participation. Freedom is necessary but insufficient, and one's liberties are limited by those of one's fellow human beings, near and far, alive or to be born.

How about legal paternalism? Does the state have the right and the duty to protect the individual against others and even against himself, e.g. by dissuading an individual from taking drugs? Legal paternalism, currently under attack on the part of libertarians and conservatives, is necessary to secure fairness and increase welfare (Garzón Valdés 1987). The only thing wrong with legal paternalism is its name, for advanced social legislation and social programs have often been the outcome of lengthy and bloody struggles. 'Legal fraternalism' is therefore a more appropiate name for it. What *is* morally and culturally objectionable is *moral* paternalism, i.e. the alleged power of the state to invade bedrooms, classrooms, libraries, laboratories and hospitals in an effort to enforce some obsolete moral code.

What about authority: is it legitimate for a democratic state to exert it? Authority is the power to force people to do what they do not want to. Hence it would seem that there is no room for authority in the democratic state. But of course no management is possible without some authority or other. Once a decision has been take democratically, those in charge of implementing it must have the requisite power, or the decision will remain dead letter. What we must avoid is not legitimate authority but illegitimate use of power, i.e. power abuse. And this is best avoided by decentralization, grass roots participation, freedom of speech, and freedom of association. Of course there must be some centralization in any state. But what characterizes the democratic state, as opposed to the authoritarian one, is central *coordination* rather than central *domination*: See Figure 11.3.

Ideally, in an integral democracy people would *want* to do their duty, for this would be in their own best interests. In such circumstances authority would be the power to delegate power and persuade people to do what is right. Any breach of authority would be regarded as either a mistake or an indication that the people in authority have strayed.

In a democracy, however limited, whoever believes that a given law or regulation is unjust has the right, nay the moral and civic duty, to oppose it by peaceful means such as complaining or petitioning,

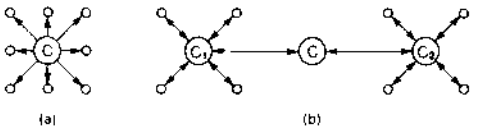


Fig. 11.3. Authoritarian centralization: central domination. Democratic centralization: central coordination of decentralized units.

litigating or taking part in rallies. Under a political dictatorship the fight against injustice is illegal and therefore either indirect, through front organizations, or direct, through open confrontation. The latter can run from civil disobedience *à la* Thoreau or Gandhi to riot or revolution.

In theory social revolutions are quick and effective surgical means that spare us much misery. In practice the cost of most social revolutions — in lives taken or shattered, and in ideals distorted or corrupted — has been staggering. It is not true that, once power has been seized, everything else follows easily and quickly. Nor is it true that any social revolution is bound to accomplish more than any social reform: many a social reform has achieved much that certain revolutions have yet to deliver. Besides, the systematic recourse to violence is not precisely a school for either democracy or morals: these are usually the first casualties of sustained violence. Still, revolution, if it has a chance of succeeding, is morally justified if and only if it is the only means of toppling an utterly unjust and inflexible government.

Defense and war come next in our agenda. Hardly anybody disputes the norm that one of the main specific functions of the state is to provide national security. The only point in dispute is how best to achieve this goal: whether by buying arms or making friends, by strengthening defense proper or preparing for aggression — or even launching a "preventive" war to forestall foreign aggression.

Since only enemies make war, it stands to reason that the best way of preventing war is to turn enmity into friendship through intense exchanges of goods, people and ideas, the way France and Germany have been doing since the end of WWII. Partners may compete in some regards but only by peaceful means. Hence partnership is the best insurance against war. On the other hand weapons, particularly of the offensive kind, buy insecurity. And the more offensive weapons a government accumulates, the more likely it is to attack or to be

attacked out of greed or fanaticism, stupidity or plain computer error. Never underestimate the obtuseness of professional warriors or the probability of machine failure. And never count on the moral conscience of either.

The current arms race is foolish and immoral. It is ruining humankind at the rate of $1.8 million a minute. It will burden our posterity, if any, with a huge fiscal deficit; it is depleting the fossil fuel reserves and polluting the environment; and it contributes to unemployment, because the arms industry employs only few and highly qualified workers. Moreover the arms race is distorting all values by making national security, rather than welfare, the overriding concern of the state. The obsession with national security provides an excuse for militarism, nationalism, state terrorism, the repression of dissent, the erosion of social services, and even education for war. It obfuscates judgment and blunts moral sensibility.

The nuclear arms race is the most monstrous of all races. It is foolish because the existing nuclear stockpile suffices to kill every human being fifty times over, and because most of the nuclear warriors themselves do not seem to believe that it will ever be used. Still, *the* (not just *a*) nuclear war might break out at any moment because of fanaticism or by mistake. And this permanent threat poses the greatest moral problem ever faced by humankind, for — as the Rev. Theodore M. Hesburgh (1983) has said — if nuclear war were to break out there would be no human beings left and therefore no moral problems to be tackled. The only practically and morally acceptable solution to the nuclear arms race is total multilateral nuclear disarmament. Anything short of this is suicidal sophistry. In particular, nuclear deterrence is risky, ruinous, and immoral.

To sum up, it is a mistake to believe that he who buys weapons buys security. Security cannot be bought unilaterally, but it may be earned by mutual agreement. It can be earned by (*a*) making honest efforts to resolve conflicts through negotiation, (*b*) universal disarmament, starting with nuclear, chemical and biological weapons, (*c*) intense trade and cultural exchange and cooperation, (*d*) education aimed at forming peaceful citizens of the world rather than brutal jingoists, and (*e*) a hundred-fold strengthening of the UN to the point of turning it into the world government. If you want war, prepare for it; if you want peace, make it.

A federation of all nations — the United States of the World —

would have to be managed (not dominated) by a world government. The main specific function of this government of governments would be to address global problems, such as the preservation of peace through disarmament and negotiation, the protection of the biosphere, and the rational exploitation of the non-renewable resources. It should also engage in megaprojects requiring the cooperation of many governments, such as the reclamation of deserts, the relocation of refugees and excess population, fusion research, the mining of ocean floors and of the moon, space exploration, the development of appropriate or medium level technologies, and the facilitation of the flow of goods, people and information throughout the world, as well as the support of regional development plans.

The formation of a world federal government would gradually erase the international borders — which is what the European Economic Community is doing. Where there are no frontiers it become pointless to defend them by force of arms. Where every government is a partner in a world-wide enterprise, the obsession with national security is replaced with enthusiasm for international exchange and cooperation. Nations do not disappear within the USW but nationalism, a major source of international conflict, is replaced with cosmopolitanism. The concept of humankind, so far only a biological one, becomes a biosociological notion. The Stoic and Cynic *cosmopolis* comes finally within reach.

It goes without saying that membership in the USW would impose certain restrictions on national sovereignty, such as the banning of offensive weapons, a limitation on mining, and the enforcement of waste management regulations. But this would be nothing new, as every government relinquishes some of its sovereignty the moment it becomes a member of an international body or signs an international treaty. It is one thing to surrender national sovereignty by opening the door to a conqueror or to a transnational company intent on plundering natural resources, and quite a different matter to relinquish some sovereignty in exchange for security and cooperation, progress and, above all, survival.

To conclude, it is high time for political philosophy to become subordinated to moral philosophy, and politics to morals. This is not only a matter of righteousness but also of prudence, for the divergence between morals and politics, and between moral and political philosophy, has led humans to the brink of extinction. (Remember Franklin's dictum: If scoundrels knew the advantages of virtue, they would be virtuous out of sheer roguery.) This divergence would not exist in a just

society managed by a technodemocratic state, for in it (*a*) every citizen would participate in politics, so that there would be no political class; (*b*) the elected officers would hold office only for limited periods and they would consider themselves, as Jefferson (1807) told A. v. Humboldt, as public property; (*c*) there would be intense cooperation and consultation instead of strong leadership — which is the preface to tyranny; and (*d*) the public servants, whether elected or appointed, would be sensitive to criticisms and suggestions by private citizens, nongovernmental organizations, and the press, so that they would not dare hindering social development but would, on the contrary, be ready to facilitate it.

5. CULTURAL

Every society, however primitive, has a culture, i.e. a subsystem composed of people who produce or help produce, diffuse or consume cultural items — scientific, technological, humanistic, artistic, or ideological. See Figure 11.4. (For an analysis of culture as a concrete system see Vol. 4, Ch. 5, Sects. 2.4 and 3.2.)

The level of development of any culture depends to some extent on that of the associated economy and polity. Without some economic prosperity and some political freedom there can be no vigorous — i.e. widespread and quickly changing — modern culture. Indeed, the latter involves certain nonutilitarian activities, such as basic scientific and humanistic research, that require some material means and some freedom of innovation and communication. It was no accident that capitalism begat modern science, science-based technology, and political democracy. Nor is it an accident that such business paradises as Hong Kong, Singapore, Taiwan and Seoul have yet to give us the likes of Cervantes, Beethoven, Einstein, and Russell.

The market economy has an ambivalent effect on culture. By turning certain cultural items into marketable commodities, it stimulates their production and socialization. But by the same token it favors the mass production of low grade and sometimes adulterated cultural items, while it neglects basic science, the humanities and genuine art. Potboilers for mass consumption may sell better than refined masterpieces; and short-term and narrow R&D that promises quick returns gets more support than any long-term adventurous, hence uncertain, exploration of the unknown. In the process the deepest sources of creation — curiosity, the joy and fun of trying something new, and the

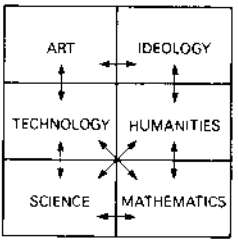


Fig. 11.4. The contemporary cultural system and its subsystems. The arrows represent both information flows and controls. Redrawn from Figure 5.8 in Vol. 4.

passion for beauty — dry up. As a consequence the river of culture dwindles and becomes muddy. In culture as elsewhere the Market giveth and the Market taketh away.

Because business cannot help being profit-oriented, it cannot take care of the whole of culture. Hence the state and non-governmental cultural associations must design and carry out a cultural policy involving the protection of the seemingly superfluous (i.e. economically unprofitable) cultural activities — precisely those that distinguish civilization from barbarism.

Every cultural (or countercultural) policy presupposes some philosophy of culture, i.e. some system of ideas concerning the nature, function and value of culture. In turn, a philosophy of culture has ontological, epistemological, axiological and ethical underpinnings. In particular, if the ethical root of a philosophy of culture happens to be some egoistic ethical doctrine, the corresponding cultural policy will be elitist. That is, it will proclaim that culture is only for those who can afford to pay for it, whence higher education, museums, libraries, and the like should be privatized or left to the good will of wealthy patrons. And wherever greed is the dominant force, philistinism prevails.

In a modern political democracy the bulk of higher culture is managed by the state. In an integral democracy it would be managed by the culture workers themselves organized in cooperatives and in autonomous state corporations such as the BBC. Only such nongovernmental and state-supported autonomous organizations can promote economically unprofitable cultural activities and heterodoxy. On the other hand business companies and authoritarian (or simply meddlesome) governments tend to reward only short-term practical pursuits

and orthodoxy, or even intolerance. Where philistinism and conformism prevail, culture withers.

Every creative individual is heterodox in some respects. Hence heterodoxy should be encouraged: justified criticism and valuable innovation should be rewarded. On the other hand we should reject the global rejection of modern culture and the attempts to replace it with myth, superstition, or pop culture. In particular we should reject bogus science (e.g. parapsychology), medical quackery (e.g. homeopathy), pseudophilosophy (e.g. existentialism), and bogus art (e.g. tachisme). It is not that we need a thought police, or a Ministry of Truth and Beauty, for either would suffocate creativity and thus stifle culture. But we do need scholars, teachers and journalists capable of diagnosing junk culture and alerting the public to it, as well as laws criminalizing medical and psychological quackery for being hazardous to health and pocket.

The state and the nongovernmental cultural organizations have the duty to protect cultural creativity, i.e. to support innovative scientists, humanists and artists — and even some technologists, for industry is often slow in recognizing the potential of technological innovation, and even more so that of scientific innovation. The state has this duty because it must protect all basic human rights, and the rights to create and to learn are among them. Actually, in a rapidly changing world like ours, learning and innovating are duties as well as rights, because participation and mutual help — which constitute the mortar of society — are inefficient or even counterproductive without a modicum of expertise and creativity. Therefore learning ought to be regarded as a lifelong process, and access to learning as a basic right at any age. Consequently massive and intensive continuing education is in the interest of everyone except political tyrannosaurs.

In a modern society the state provides opportunities for university education. In particular, it provides higher education in the basic sciences and humanities, which are of little use to business companies. The state must continue to do so because it can be the most powerful custodian of culture, and there is no modern culture without science and the humanities. On the other hand it is doubtful that the state has the obligation to foot the bill of the training of engineers, physicians, lawyers, accountants and other professionals who are likely to engage in profitable practice upon graduating. It would be unfair to force the taxpayer to contribute to their education. But it would also be unfair to

restrict admission to professional schools to the wealthy. The fair thing to do is to offer future professionals loans repayable out of their professional earnings. On the other hand good arts and sciences students should get free education.

Scientists, humanists and artists deserve state support not only for their original contributions, which enrich our lives, but also because they spread culture as teachers, authors, journalists, or performers. In particular, some of them are needed to train engineers, physicians, lawyers, and business administrators. Hence if a politician should fail to understand that the nonutilitarian branches of culture have an intrinsic value, in that they enhance the quality of our lives, we may try to make him understand that they are needed in any good school.

Education should be seen in its various functions: as a means for self-realization, as part of the socialization process, as part of the formation of responsible and cooperative individuals, as the training of skilled workers, and as preparation to face the unexpected challenges posed by social evolution — or to make them happen. Of all the imaginable social orders technodemocracy is the one that calls for the most demanding education, because every normal member of such society is supposed to take part in some ongoing decision making process or other. If every decision had to be taken by a committee of inexperts, rather than by a team of knowledgeable individuals advised by experts, people would spend most of their lives attending meetings rather than working and enjoying themselves.

What holds for schools holds also, *mutatis mutandis*, for mass media. These too discharge several functions: they broadcast information, make value, opinion and taste, promote prosocial (or antisocial) behavior, awake (or smother) vocation, and stimulate (or inhibit) consumption. In order to operate efficiently the media need freedom: if subjected to censorship they only output propaganda. However, it is no secret that the lack of economic freedom can have the same effect. In particular, when the news is handled as one more commodity it can be sold (hence socialized), bought (hence withheld), or adulterated. In an integral democray the media would be owned and operated by cooperatives, and they would serve a more enlightened public because they would enlighten rather than drug it.

The socialization of higher culture that began five centuries ago is still midway. In fact, in most societies higher culture is the monopoly of an elite. The masses are usually served the cultural equivalent of junk

food: pulp magazines and commercial television, instant art, pseudoscience, and even pseudophilosophy. In an integral democracy there would be no such division of culture into genuine and fake, one for elites and the other for the masses. In such a society everyone would have the opportunity to obtain a good scientific, technological, humanistic and artistic education, so that few if any people would produce or consume cultural junk. True, since only a minority would avail themselves of this opportunity, the culture would be dominated by elites. But these would be cultural, not economic or political elites.

6. SUMMARY

The survival of humankind is being threatened by a handful of man-made global problems: nuclear war and the subsequent nuclear winter (or at least fall), the depletion of natural resources, environmental degradation, poverty, the North-South inequality, and overpopulation. Since global problems call for global solutions, they may only be solved by the concerted action of all national governments. (See e.g. Brown & Postel 1987 p. 18 and WCED 1987.)

The solution to the above-mentioned global problems requires more than a few international agreements and emergency measures. It calls for world-wide, comprehensive and radical social reforms if only because we have been pushed to the brink of extinction by allowing economic and political greed to trample on the most basic values and norms, starting with the right to well-being and interpersonal and international solidarity. We need a new social order centered in the moral norm "Enjoy life and help live". This social order is integral technodemocracy, for it combines social justice with technical efficiency.

Integral technodemocracy is superior to its main rivals, the relief or liberal state, and statist or bureaucratic socialism. The former was introduced to save capitalism from its own greed by palliating its outstanding faults, namely unemployment and the inequitable distribution of wealth. (See e.g. Keynes 1936.) The relief state has alleviated much misery but it has not eradicated the main sources of misery, in particular war and the preparation for war. Moreover it has now reached the end of its tether in nations with high unemployment rates and heavy military expenditures. As for statist or bureaucratic socialism, it has most of the defects of the liberal megastate and few of its virtues. In particular it has disowned most civil rights, concentrated political

power, and restrained creativity in the name of a largely obsolete ideology.

Any big government, whether capitalist or socialist, is bound to shrink the private sphere, smother initiative and creativity, and erode self-reliance and solidarity, while favoring "the development of unbridled, narrow-minded individualism" (Kropotkin 1902 p. 227). However, the solution to the problem of big government does not consist in miniaturizing, let alone in eliminating it altogether. The rational thing to do is to change some of the functions of the state, to decentralize and democratize it, and to work for a just society and a peaceful international order.

This goal cannot be attained overnight because there are no "quick fixes" for social problems. There are none because all important social issues have deep roots in the past and in all social spheres — the economy, the culture and the polity. Social problems call for long-term social reforms. However, these cannot be of the piecemeal kind because (*a*) every society is a multidimensional system and (*b*) partial reforms do not question the basic social order. We need global reforms in the two senses of the term 'global': embracing all of the subsystems of every society, and world-wide. As the historian Carr (1961 p. 207) wrote, "Progress in human affairs [. . .] has come mainly through the bold readiness of human beings not to confine themselves to piecemeal improvements in the way things are done, but to present fundamental changes in the name of reason to the current way of doing things and to the avowed or hidden assumptions on which it rests". And all great social changes have been fueled by moral passions combined with material interests (Moore 1973 p. 3).

Great changes for the better cannot be improvised: they must be planned. Free rational individuals have life plans, and independent rational governments have national projects. A national project may be tacit or explicit, and it may be pushed by special interests groups or by the entire society. The success or failure of a national project depends on the ability of a group of political and cultural leaders to persuade their fellow citizens that they should devote their best energies to implementing the plan. "National projects only succeed when they can meet the needs of the people, are compatible with the vital interests of other people, and take the social, economic, technological, moral and cultural forces of the times into account" (Stern 1967 p. 270). Nowadays we need not only feasible national projects, particularly in

the underdeveloped nations. We also need a planetary project capable of saving humankind from itself, and of building a viable, peaceful and just social order. In other words, we need a world federal government heading — not muscling — the United States of the World.

To conclude. The pessimist, the conformist, and the indifferent may claim that this entire chapter is an exercise in political fiction. We rejoin that, though futuristic, our sketch for a viable world is feasible and that, unless humankind embarks on some such project, it will have no future. Those who refuse to see that we are on the brink of extinction, or who do realize this but do not bother to do anything, condone the greatest evil that human beings could ever imagine.

CHAPTER 12

VALUES AND MORALS FOR A VIABLE FUTURE

If H. G. Wells were alive today he might write as follows, though of course in better style. "As Charles Dickens might say, ours is the worst of times and also the best of times. It is the worst of times because humankind is quickly digging its own grave. It is the best of times because never before has humankind had so many powerful means to bring about a bright future. The lemmings jump off the cliff to their deaths because they have never heard of continental drift. But we know better, so we need not keep on marching blindly. We are still in time to turn away from the cliff. But the time is getting shorter by the day."

In this chapter we shall review the current global crisis that is threatening the survival of humankind. We shall suggest that humans have only themselves to blame for having chosen the wrong values and therefore the wrong morals. And we shall end by suggesting a system of values and moral norms that may save us from ourselves. In the process we shall sketch the kind of society that would incorporate such values and morals.

1. THE THIRTEEN HORSEMEN OF THE APOCALYPSE

Anyone who watches the daily newscast and has a nodding acquaintance with such statistical yearbooks as the Worldwatch Institute's *State of the World* and Sivard's *World Military and Social Expenditures* realizes that humankind is on the brink of an apocalyptic catastrophe. This time the horsemen of the Apocalypse are for real and they are thirteen, and they are galloping fast and laying our world to waste. They are the following (Bunge 1988b):

(1) *the arms race*, which may end in the final holocaust and nuclear winter, or may go on with conventional weapons even after the entire nuclear stockpile has been dismantled, and in the meantime is frightening and impoverishing us all;

(2) *the rapid depletion of nonrenewable resources*, which include oil (the reserves of which may last another two decades or so) and all the critical industrial metals;

(3) *environmental degradation* as a result of industrial, urban and domestic fumes and toxic wastes, and of the destruction of forests;

(4) *shrinking and misuse of arable land* due to deforestation, overcultivation, abuse of chemical fertilizers, herbicides and defoliants, and the cultivation of plants for cattle fodder and alcoholic beverages;

(5) *overindustrialization* in the rich countries, due to overconsumption, and *underindustrialization* and underconsumption in the poor ones;

(6) *overpopulation*: the population of most nations keeps growing beyond their carrying capacities and social resources, sometimes doubling every generation;

(7) *hunger and thirst*: about 800 million people are not eating enough for an active working life, and twice as many drink contaminated water;

(8) *unemployment and underemployment*: only three out of five adults in the Third World are fully employed;

(9) *inadequate health care*: most people in the world have no access to modern sanitation and medicine;

(10) *militarization*: the statesmen of most nations worry more about national security than about peace and welfare, and more than half of the so-called developing nations are ruled by the military;

(11) *debt*: most nations have accumulated huge national and foreign debts, usually contracted to pay for military expenditures, which will have to be repaid by posterity, and in the meantime increase poverty and dependency;

(12) *the widening North-South gap* as a result of the mismanagement of the economy and the state in the poor countries, and of the ruthless exploitation of their resources on the part of some industrialized nations;

(13) *the decline of culture*: an increasing number of well-trained brains are devoted to weapons design or to the maintenance of inefficient and oppressive governments, while basic science, the humanities and the arts, as well as the civilian technologies, are declining while mass-produced junk culture is prospering and displacing genuine folk culture.

All these problems are moral as well as social. They touch on all the aspects of contemporary life and they affect, directly or indirectly, all nations regardless of their level of development. They are global problems because the biosphere does not honor any national borders

and because, from 1492 on, all nations have become interdependent. If any country suffers deforestation, desertification, massive pollution, or plague, its neighbors are affected as well. If any country is ravaged by poverty, foreign debt, civil war, or international conflict, its neighbors suffer as well. Just as all organisms are components of a single food web, so all societies are part of a world wide network, and every person has five billion partners. In short, the world is physically, biologically and socially one regardless of its many divisions. Hence the predicament of any nation is the predicament of all.

2. OLD AND NEW VALUES AND MORALS

We all live by our values. If our values are right we may be saved, otherwise we shall succumb. Now, I submit that the prevailing value systems are wrong, and that this is the root of our woes.

The prevailing value systems are axiological individualism (egocentrism) and holism (sociocentrism). The former supports a morality that places private interests before the public interest, whereas holism sacrifices the individual to the whole. According to individualism what is good for me (or for my business company) is good enough for all. According to holism what is good for the whole (or the state or the cause) is good for anyone.

In either case wants are given precedence over basic needs and legitimate aspirations. So, we reach for what we (or our rulers or employers) desire, rather than for what we need to survive, let alone to enjoy well-being in good conscience. We do not always desire what is objectively valuable but, on the contrary, we often value what we (or our rulers or employers) desire. In either case we lose sight of the Socratic ideal of *the good individual in a good society.*

The consequences of such value systems for morality are obvious. In one case we are told to do as we please, in the other that we may only do what "society" (meaning the state, church or party) wants. In the first case we are told that we are fully autonomous, in the second that we are fully heteronomous. Accordingly in the first case we are expected to behave as spoiled brats, in the second as kamikazes. Fortunately normal people are neither.

Individualism fosters consumerism, which is depleting nonrenewable resources, fouling our nest, and exploiting the Third World. Holism breeds passivity and smothers creativity and initiative. And both generate the obsession with national security, a major cause of militarism

and waste. The egocentric sacrifices the future for the sake of the present, and the sociocentric does the converse, and between the two they have pushed humankind to the brink.

If our diagnosis is correct, i.e. if the survival of humankind is at risk because some of us — mainly our leaders and habit makers — have espoused the wrong values and consequently the wrong morals, then the way to salvation is clear. We must stop identifying the good with whatever is likely to benefit an individual at the expense of his fellow human beings, or society at the expense of its individual components.

If we realize that the future of our species is at stake, and wish it to be saved, we must transvaluate the dominant value systems. We must reject all of the obsolete ideologies and return to the basic values: to whatever may help us meet our basic needs and legitimate wants — *ours* not just *mine* or *theirs*. The corresponding moral code can be summarized into our Norm 4.6: *Enjoy life and help live.* Indeed, only by satisfying our basic needs and legitimate (i.e. socially admissible) aspirations can we enjoy life; and only by helping others pursue the same goal may we get the help we need and keep a clean conscience.

3. A SURVIVAL AND DEVELOPMENT MORALITY

The *summum bonum* of the value system advocated in this book is human survival. Since at present the survival of humankind is threatened by the nuclear arms race and the degradation of the environment, stopping these two degenerative processes is the supreme moral imperative of our time: See Figure 12.1.

Everything else must be subordinated to this imperative for, unless it is observed, there will be nobody left to pursue any human goals, not even evil ones. In particular, the socialism-capitalism (or East-West) conflict is not the main one. The main alternative today is survival or extinction.

If the preceding is true, then the greatest evildoers of our time are not so much the criminals within the reach of the criminal codes, as the warmongers and the large scale plunderers and polluters, as well as their political accomplices. By comparison the terrorists and murderers, swindlers and thieves, and even the mafiosi and drug pushers are small fry for, after all, they are not out to steal the planet or exterminate all life. The power of those large scale criminals must be drastically curtailed if humankind is to survive.

However, surviving is not enough. All human beings and, indeed, all

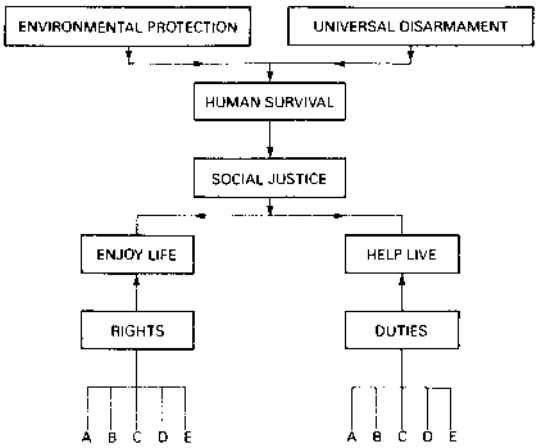


Fig. 12.1. Basic schema of agathonism. A = Environmental, B = Biological, C = Cultural, D = Political, E = Economic. An arrow represents the converse of the implication relation. Thus environmental protection and universal disarmament are jointly necessary for the survival of humankind, while the exercise of human rights is necessary for the enjoyment of life. The three upper tiers summarize social morality, the three lower ones personal morality.

animals strive for a good life. Moreover, human beings must be able at least to imagine what the good life is like, if they are to bother doing something to save humankind. We need then more than a salvific morality: we need a more comprehensive moral code encouraging us to seek the good for ourselves and others — i.e. an *agathonist* morality. (Αγαθόν = good.) And what is good? Anything capable of meeting a need or a want (Ch. 1, Sect. 3). Whence our supreme Norm 4.6: *Enjoy life and help live.*

Since what is at stake is the whole of humankind and, indeed, the entire biosphere, we had better look for a universal or cross-cultural morality rather than for a sectarian one. A universal moral code would have to be a *minimal* or *core* morality, i.e. it would have to equal the intersection of all the existing viable moralities. Recall Figure 7.2. Beyond such minimal or core morality every human group should be free to adopt its own moral code, preferably the one best adjusted to its lifestyle or occupation.

It is not hard to construct a set of moral norms that would receive

the assent of all human beings with the sole exception of pathological egotists — a minority in every viable society. In fact, most people prefer pleasure to pain, sufficiency to scarcity, company to solitude, peace to war, security to insecurity, employment to idleness, cooperation to strife, freedom to serfdom, fairness to injustice, benevolence to malevolence, loyalty to betrayal, knowledge to ignorance, truth to falsity, and so on. And all people can learn to put up with some burdens in exchange for the benefits they receive: i.e. they can learn to do their duty provided they are not required to perform useless sacrifices.

The characteristics we have just listed are part of human nature (Ch. 5, Sect. 2.1). They are cross-cultural or universal, and they are the roots of a universal morality, i.e. one that could be binding on all human beings. Table 12.1 exhibits the skeleton of a possible *Universal Charter of Human Rights and Duties* constituting the core morality we need to survive and develop. To be sure no morality suffices for anything, but some morality is necessary in any society. Without moral principles we drift, and with bad ones we sink; only when equipped with good moral principles can we hope to reach the other shore.

4. A VIABLE SOCIAL ORDER

The morality sketched in Table 12.1 can only be observed in a good society, i.e. one where everybody can get what she needs, and is free to pursue her legitimate interests and inclinations. None of the existing societies is good enough, for in every one of them some group or other is being discriminated against biologically, economically, culturally, or politically. (Obvious examples: Unemployment and underemployment, economic barriers to health care and higher education, political persecution and apathy.) A good society is just, i.e. free from biological, economic, cultural or political privileges. (The converse is false: a just society may be miserable, hence not good: Recall Definition 2.6.) In a just society, or orthopolis, everyone has the same opportunities, although not everyone may be able or willing to make full use of them all.

Moreover a just society is integrally democratic, i.e. everyone has an effective say in the management of all the social groups she is a member of. Unless integral, a democracy is unjust and unstable. For example, political democracy is compatible with race and gender discrimination,

TABLE 12.1. Sample of human rights and duties. Alphabetic ordering

Right to	Duty to
ask for help	offer help
associate	refrain from ganging up for mischief
choose friends	be loyal to friends
choose honest lifestyle	respect other people's lifestyles
choose honest occupation	help others find occupation
choose spouse	discharge marital obligations
compete	cooperate
create	respect valuable creations
criticize errors & wrongs	help correct errors & right wrongs
defend one's rights	respect other people's rights
elect officers	help duly elected officers do their job
enjoy the environment	protect the environment
equality before the law	observe the just laws
equality of opportunity	allow others to seize their opportunities
equal pay for equal work	deserve one's wages
free inquiry	be intellectually honest
free speech	refrain from inciting antisocial behavior
health care	contribute to the health care system
learn	share knowledge
live	respect other living beings
live with parents	share in domestic chores or expenses
love	respect and protect the beloved
meet one's basic needs & legitimate desires	help others meet their basic needs & legitimate desires
own things for personal use	take good care of one's property
participate	participate
plan one's own life	help others fulfil their life projects
privacy	respect other people's privacy
pursue one's interests	help other people pursue their interests
old age security	contribute to the pension fund
rest and leisure	respect other people's rest and leisure
run for office	do a good job in office
security	help maintain security
travel	help fellow travelers
work	observe the rules of good workmanship
worship	tolerate other people's religious beliefs and practices

economic exploitation, and cultural marginality. Partial democracy, whether political, economic, or cultural, is elitist and therefore rife with social conflicts — hence repressive, unstable, or both. The four components of integral democracy hang together, i.e. they form a system: See Figure 12.2.

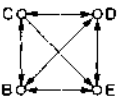


Fig. 12.2. The four components of democracy hang together. B = Biological democracy, E = Economic democracy, C = Cultural democracy, D = Political democracy.

However, no matter how complete, unless accompanied by expertise democracy is inefficient, hence primitive or wasteful. And nowadays expertise is not just craftsmanship, in particular political skill, but science-based technology, in particular sociotechnology — for which see Vol. 7, Ch. 5, Sect. 4. Therefore the social ideal to work for in the light of the above is a combination of integral democracy with technology, i.e. what we have called *integral technodemocracy*.

An integral technodemocracy will not stand still: it will advance because its members will be free and competent to tackle new problems as well as to improve on old solutions. However, given the current population excess and the huge gap between the haves and the have-nots (individuals and nations), we should not count on an economy of plenty for all. Except in the realm of culture, where benefits always exceed costs, we must expect temperance rather than abundance — unless we continue to be intent on disinheriting our posterity.

Given the increasing interdependence among nations, and the fact that all of them are afflicted with both global and local problems, it is desirable to work for a world federation headed by a world government capable of tackling planetary problems (Ch. 11, Sect. 4). Such political unity need not eliminate regional diversities. On the contrary, it should help preserve every valuable diversity by sparing people the ravages of war, famine and plague, and by helping the victims of natural disaster — which are likely to increase in frequency and severity, at least for a while, as a result of pollution, deforestation, overcultivation, and other concomitants of unbridled reproduction, production and consumption.

Moreover, a world government, to be effective and lasting, would have to be democratic, for otherwise it would not obtain the required cooperation of the member states. In particular it would have to tolerate differences in economic and political organization, and it would have to guarantee each member nation the right to opt out of any world program — except of course for the offensive arms control and the global environmental protection programs.

The old social orders are incompatible with our supreme moral norm *Enjoy life and help live* and, a fortiori, with the Universal Charter of Human Rights and Duties sketched in Table 12.1. Moreover none of those orders promises a viable future. The alternatives are not capitalism or socialism, and national sovereignty or superpower hegemony, but integral democracy or elitism, and world anarchy or international coordination and cooperation.

5. CONCLUSION

The morality advocated in this book is based on a value theory according to which anything that promotes welfare is good. Our morality can be summed up in the norm *Enjoy life and help live*, which is selftuist rather than either purely selfish or purely altruistic. The morality in question has, among others, the following characteristics. It is

(i) *agathonist*: it recommends the pursuit of the good for self and others, rather than the exclusive pursuit of pleasure, profit or power — or the grim discharging of heavy and thankless duty;

(ii) *systemist* rather than either individualist (egocentric) or holist (sociocentric);

(iii) *consequentialist*, though not utilitarian, for maintaining that our actions are to be judged mainly by their consequences;

(iv) *empiricist*, or sensitive to the tests of real life, rather than aprioristic or conventionalist;

(v) *rationalist*, or open to argument, rather than dogmatic (in particular intuitionist);

(vi) *scientistic* for holding that science and science-based technology are the best judges of claims to good and right, as well as the best antidotes against axiological and ethical dogmatism;

(vii) *realistic* for tackling real life problems and proposing practical norms;

(viii) *universalist* rather than nationalist, parochial or sectarian;

(ix) *democratic* for holding that the human condition can be improved only through active public participation in the enjoyment and management of all the natural, economic, cultural and political resources of society;

(x) *secular* or humanistic rather than supernaturalist or revealed.

I submit that, far from being a futile academic exercise, a pious wish,

or a cloak of narrow vested interests, a morality of this sort is necessary for the survival and development of the human species. To philosophize we must be alive, but if humankind is to survive, and a fortiori to develop, we must philosophize correctly.

This concludes the *Treatise*. May its readers feel motivated to improve on it.

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